



# **STIC Search Report**

## **Biotech-Chem Library**

**STIC Database Tracking Number: 157342**

**TO: Rebecca Cook**  
**Location: REM-3A71/3C70**  
**Art Unit: 1614**  
**Tuesday, July 12, 2005**  
**Case Serial Number: 10/694644**

**From: John DiNatale**  
**Location: Biotech-Chem Library**  
**REM-1B65**  
**Phone: (571)272-2557**

**john.dinatale@uspto.gov**

### **Search Notes**

Examiner Cook,

See attached results.

If you have any questions about this search feel free to contact me at any time.

Thank you for using STIC search services!

John DiNatale  
Technical Information Specialist  
STIC Biotech/Chem Library  
(571)272-2557

***This Page Blank (uspto)***

157342  
SEARCH REQUEST FORM

Access DB# \_\_\_\_\_

Scientific and Technical Information Center

Requester's Full Name: Rebecca Look <sup>11/23/05</sup> Extension # : 69824 Date: 6/23/05  
 Art Unit: 1614 Phone Number 30 (877) Serial Number: 101694644  
 Mail Box and Bldg/Room Location: 3C70 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

\*\*\*\*\*  
 Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of invention: \_\_\_\_\_

Inventors (please provide full names): Simon Fraser Campbell

Earliest Priority Filing Date: \_\_\_\_\_

\* For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Please search compound of claim 8 for known uses in  
 medicine, Caplins, Enlase & Biosis.

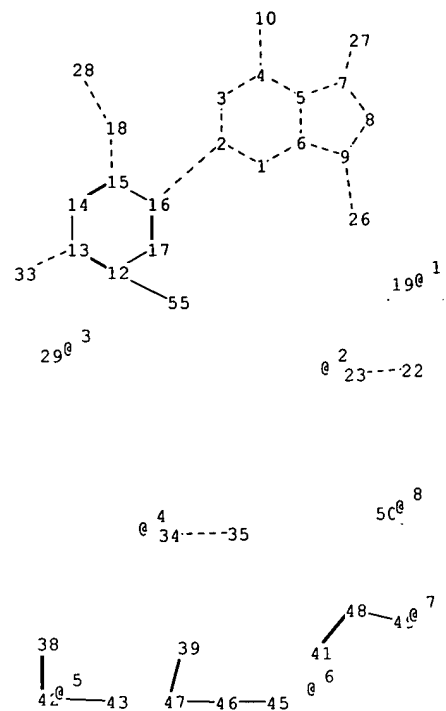
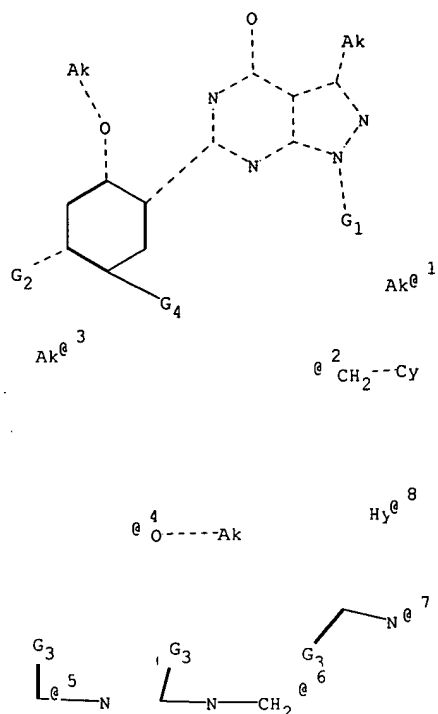
Also. what is structure of highlighted  
 Compound of claim 2. attached

Thank you  
 Rebecca

STAFF USE ONLY

	Type of Search	Vendors and cost where applicable
Searcher: _____	NA Sequence (#) _____	STN _____
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) _____	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic _____	Dr. Link _____
Date Completed: _____	Litigation _____	Lexis/Nexis _____
Searcher Prep. Review Time: _____	Fulltext _____	Sequence Systems _____
Clerical Prep. Time: _____	Patent Family _____	WWW/Internet _____
Online Time _____	Other _____	Other (specify) _____

***This Page Blank (uspto)***



chain nodes :

10 18 19 22 23 26 27 28 29 33 34 35 38 39 41 42 43 45 50 55

ring nodes :

1 2 3 4 5 6 7 8 9 12 13 14 15 16 17

ring/chain nodes :

46 47 48 49

chain bonds :

2-16 4-10 7-27 9-26 12-55 13-33 15-18 18-28 22-23 34-35 38-42 39-47 41-48  
42-43 45-46

ring/chain bonds :

46-47 48-49

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 8-9 12-13 12-17 13-14 14-15 15-16  
16-17

exact/norm bonds :

1-2 1-6 2-3 2-16 3-4 4-5 4-10 5-6 5-7 6-9 7-8 7-27 8-9 9-26 12-55 13-33  
15-18 18-28 22-23 34-35 38-42 39-47 41-48 42-43 46-47 48-49

exact bonds :

45-46

normalized bonds :

12-13 12-17 13-14 14-15 15-16 16-17

G1:[\*1], [\*2]

G2:H, [\*3]

G3:O, S, NH

*This Page Blank (uspro)*

L9 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 1995:761961 CAPLUS

DOCUMENT NUMBER:

123:340173

TITLE:

4-Aminoquinazoline derivatives as inhibitors of cyclic  
guanosine 3',5'-monophosphate phosphodiesterase and  
thromboxane A2 synthetase

INVENTOR(S):

Lee, Sung J.; Konishi, Yoshitaka; Macina, Orest T.;  
Kondo, Kigen; Yu, Dingwei T.

Searched by John DiNatale 571-272-2557

Page 7

***This Page Blank (uspto)***



G4:CN,NO2,H,[\*4],[\*5],[\*6],[\*7],[\*8]

Connectivity :

4:3 E exact RC ring/chain 10:1 E exact RC ring/chain

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:CLASS 12:Atom  
13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:CLASS 19:CLASS 22:Atom 23:CLASS  
26:CLASS 27:CLASS 28:CLASS 29:CLASS 33:CLASS 34:CLASS 35:CLASS 38:CLASS 39:CLASS  
41:CLASS 42:CLASS 43:CLASS 45:CLASS 46:CLASS 47:CLASS 48:CLASS 49:CLASS 50:Atom  
55:CLASS

Generic attributes :

19:

Number of Carbon Atoms : less than 7

22:

Saturation : Unsaturated

Element Count :

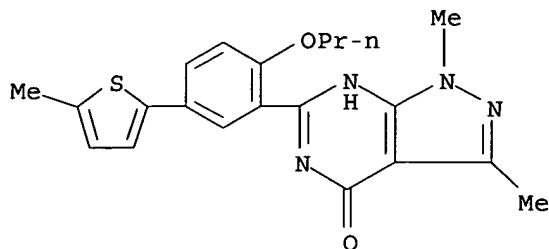
Node 19: Limited

C,C1-6

Node 29: Limited

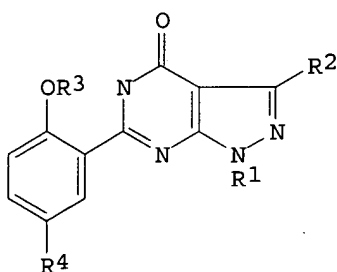
C,C1-6

***This Page Blank (uspto)***

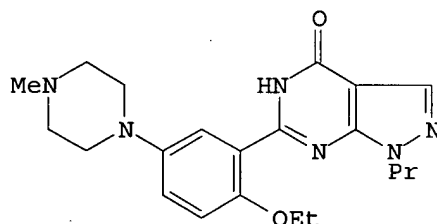


L11 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1993:495549 CAPLUS  
 DOCUMENT NUMBER: 119:95549  
 TITLE: Pyrazolopyrimidinone antianginal agents  
 INVENTOR(S): Bell, Andrew Simon; Terrett, Nicholas Kenneth  
 PATENT ASSIGNEE(S): Pfizer Ltd., UK; Pfizer Inc.  
 SOURCE: PCT Int. Appl., 47 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9307149	A1	19930415	WO 1992-EP2237	19920924
W: CA, FI, JP, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE				
PRIORITY APPLN. INFO.:			GB 1991-21028	A 19911003
OTHER SOURCE(S):		MARPAT 119:95549		
GI				



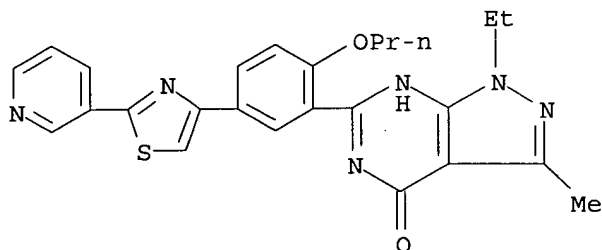
I



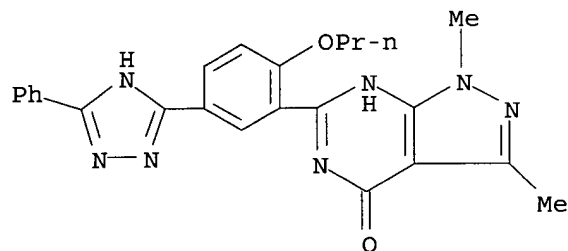
II

AB The title compds. 1,5-dihydro-6-(2-alkoxyphenyl)-4H-pyrazolo[3,4-d]pyrimidin-4-ones I (R1-4 = alkyl) and their pharmaceutically acceptable salts are claimed. I are cyclic guanosine 3',5'-monophosphate phosphodiesterase inhibitors. The use of I for the treatment of angina, hypertension, congestive heart failure, atherosclerosis, stroke, peripheral vascular disease, chronic asthma, bronchitis, glaucoma, and diseases characterized by gut motility is claimed. Treatment of 6-[5-(chlorosulfonyl)-2-ethoxyphenyl]-1,5-dihydro-1-propyl-4H-pyrazolo[3,4-d]pyrimidin-4-one with 1-methylpiperazine gave 6-[2-ethoxy-5-[(4-methylpiperazinyl)sulfonyl]phenyl]-1,5-dihydro-1-propyl-4H-pyrazolo[3,4-d]pyrimidin-4-one (II). The cyclic guanosine 3',5'-monophosphate

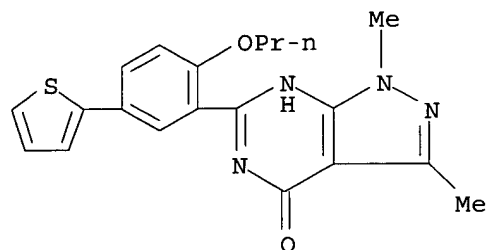
RN 168464-88-8 CAPLUS  
CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1-ethyl-1,5-dihydro-3-methyl-6-[2-propoxy-5-[2-(3-pyridinyl)-4-thiazolyl]phenyl]- (9CI) (CA INDEX NAME)



RN 168464-90-2 CAPLUS  
CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-1,3-dimethyl-6-[5-(5-phenyl-1H-1,2,4-triazol-3-yl)-2-propoxyphenyl]- (9CI) (CA INDEX NAME)



RN 168464-91-3 CAPLUS  
CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-1,3-dimethyl-6-[2-propoxy-5-(2-thienyl)phenyl]- (9CI) (CA INDEX NAME)



RN 168464-92-4 CAPLUS  
CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-1,3-dimethyl-6-[5-(5-methyl-2-thienyl)-2-propoxyphenyl]- (9CI) (CA INDEX NAME)

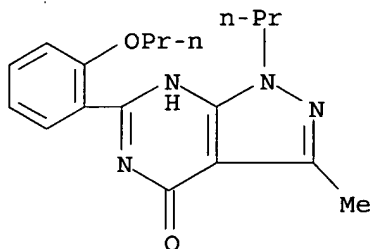
phosphodiesterase-inhibiting IC<sub>50</sub> of II was 8.6 nM and the cyclic adenosine 3',5'-monophosphate phosphodiesterase-inhibiting IC<sub>50</sub> was 52,000 nM.

IT 148872-11-1P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of, as antianginal agent)

RN 148872-11-1 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-3-methyl-6-(2-propoxyphenyl)-1-propyl- (9CI) (CA INDEX NAME)



L11 ANSWER 10 OF 13 USPATFULL on STN DUPLICATE 1  
ACCESSION NUMBER: 2003:24194 USPATFULL  
TITLE: Use of PDE V inhibitors for improved fecundity in mammals  
INVENTOR(S): Simon Lempriere, Westbrook, Sandwich, UNITED KINGDOM  
Johannes Fridrich, Zanzinger, Sandwich, UNITED KINGDOM

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003018037	A1	20030123
	US 6743799	B2	20040601
APPLICATION INFO.:	US 2002-229534	A1	20020827 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2001-982445, filed on 18 Oct 2001, PENDING		

	NUMBER	DATE
PRIORITY INFORMATION:	GB 2000-25782	20001020
	US 2000-253338P	20001128 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	KOHN & ASSOCIATES, PLLC, Suite 410, 30500 Northwestern Highway, Farmington Hills, MI, 48334	
NUMBER OF CLAIMS:	21	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	4 Drawing Page(s)	
LINE COUNT:	901	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to the use of a cyclic guanosine 3', 5'-monophosphate phosphodiesterase type five (cGMP PDE V) inhibitor for increasing fecundity in a mammal by one or more of (a) promoting the growth of an oocyte, zygote, blastocyst, embryo and/or foetus, (b) increasing the rate or probability of survival of an embryo and/or foetus and (c) increasing the birth weight of a progeny, or for increasing milk productivity.

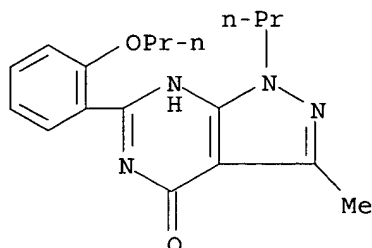
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 148872-11-1

(use of PDE V inhibitors for improved fecundity in mammals)

RN 148872-11-1 USPATFULL

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-3-methyl-6-(2-propoxyphenyl)-1-propyl- (9CI) (CA INDEX NAME)



L11 ANSWER 11 OF 13 USPATFULL on STN

DUPLICATE 2

ACCESSION NUMBER: 2003:24193 USPATFULL

TITLE: Use of PDE V inhibitors for improved fecundity in mammals

INVENTOR(S): Westbrook, Simon Lempriere, Kent, UNITED KINGDOM  
Zanzinger, Johannes Fridrich, Kent, UNITED KINGDOM

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003018036	A1	20030123
	US 6548508	B2	20030415
APPLICATION INFO.:	US 2001-982445	A1	20011018 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	GB 2000-25782	20001020
	US 2000-253338P	20001128 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Paul H. Ginsburg, Pfizer Inc, 20th Floor, 235 East 42nd Street, New York, NY, 10017-5755	
NUMBER OF CLAIMS:	21	
EXEMPLARY CLAIM:	1	
LINE COUNT:	896	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to the use of a cyclic guanosine 3', 5'-monophosphate phosphodiesterase type five (cGMP PDE V) inhibitor for increasing fecundity in a mammal by one or more of (a) promoting the growth of an oocyte, zygote, blastocyst, embryo and/or fetus, (b) increasing the rate or probability of survival of an embryo and/or foetus and (c) increasing the birth weight of a progeny, or for increasing milk productivity.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 148872-11-1

(use of PDE V inhibitors for improved fecundity in mammals)

RN 148872-11-1 USPATFULL

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-3-methyl-6-(2-propoxyphenyl)-1-propyl- (9CI) (CA INDEX NAME)

=> file registry

FILE 'REGISTRY' ENTERED AT 15:39:02 ON 12 JUL 2005

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2005 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 11 JUL 2005 HIGHEST RN 854584-06-8

DICTIONARY FILE UPDATES: 11 JUL 2005 HIGHEST RN 854584-06-8

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

Please note that search-term pricing does apply when conducting SmartSELECT searches.

\*\*\*\*\*  
\*  
\* The CA roles and document type information have been removed from \*  
\* the IDE default display format and the ED field has been added, \*  
\* effective March 20, 2005. A new display format, IDERL, is now \*  
\* available and contains the CA role and document type information. \*  
\*  
\*\*\*\*\*

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:  
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> file caplus

FILE 'CAPLUS' ENTERED AT 15:39:07 ON 12 JUL 2005

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 12 Jul 2005 VOL 143 ISS 3

FILE LAST UPDATED: 11 Jul 2005 (20050711/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> file medline

FILE 'MEDLINE' ENTERED AT 15:39:15 ON 12 JUL 2005

FILE LAST UPDATED: 9 JUL 2005 (20050709/UP). FILE COVERS 1950 TO DATE.

On December 19, 2004, the 2005 MeSH terms were loaded.

The MEDLINE reload for 2005 is now available. For details enter HELP RLOAD at an arrow prompt (=>). See also:

<http://www.nlm.nih.gov/mesh/>  
[http://www.nlm.nih.gov/pubs/techbull/nd04/nd04\\_mesh.html](http://www.nlm.nih.gov/pubs/techbull/nd04/nd04_mesh.html)

OLDMEDLINE now back to 1950.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2005 vocabulary.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> file embase

FILE 'EMBASE' ENTERED AT 15:39:23 ON 12 JUL 2005

COPYRIGHT (C) 2005 Elsevier Inc. All rights reserved.

FILE COVERS 1974 TO 7 Jul 2005 (20050707/ED)

EMBASE has been reloaded. Enter HELP RLOAD for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> file biosis

FILE 'BIOSIS' ENTERED AT 15:39:30 ON 12 JUL 2005

Copyright (c) 2005 The Thomson Corporation

FILE COVERS 1969 TO DATE.

CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 8 July 2005 (20050708/ED)

FILE RELOADED: 19 October 2003.

=> file uspatfull

FILE 'USPATFULL' ENTERED AT 15:40:47 ON 12 JUL 2005

CA INDEXING COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 12 Jul 2005 (20050712/PD)

FILE LAST UPDATED: 12 Jul 2005 (20050712/ED)

HIGHEST GRANTED PATENT NUMBER: US6918136

HIGHEST APPLICATION PUBLICATION NUMBER: US2005150027

CA INDEXING IS CURRENT THROUGH 12 Jul 2005 (20050712/UPCA)

ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 12 Jul 2005 (20050712/PD)

REVISED CLASS FIELDS (/NCL) LAST RELOADED: Jun 2005

USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Jun 2005

>>> USPAT2 is now available. USPATFULL contains full text of the <<<



>>> original, i.e., the earliest published granted patents or <<<  
>>> applications. USPAT2 contains full text of the latest US <<<  
>>> publications, starting in 2001, for the inventions covered in <<<  
>>> USPATFULL. A USPATFULL record contains not only the original <<<  
>>> published document but also a list of any subsequent <<<  
>>> publications. The publication number, patent kind code, and <<<  
>>> publication date for all the US publications for an invention <<<  
>>> are displayed in the PI (Patent Information) field of USPATFULL <<<  
>>> records and may be searched in standard search fields, e.g., /PN, <<<  
>>> /PK, etc. <<<

>>> USPATFULL and USPAT2 can be accessed and searched together <<<  
>>> through the new cluster USPATALL. Type FILE USPATALL to <<<  
>>> enter this cluster. <<<  
>>> <<<  
>>> Use USPATALL when searching terms such as patent assignees, <<<  
>>> classifications, or claims, that may potentially change from <<<  
>>> the earliest to the latest publication. <<<

This file contains CAS Registry Numbers for easy and accurate  
substance identification.

=> file uspat2

FILE 'USPAT2' ENTERED AT 15:40:54 ON 12 JUL 2005  
CA INDEXING COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 2001 TO PUBLICATION DATE: 12 Jul 2005 (20050712/PD)  
FILE LAST UPDATED: 12 Jul 2005 (20050712/ED)  
HIGHEST GRANTED PATENT NUMBER: US2004225788  
HIGHEST APPLICATION PUBLICATION NUMBER: US2005150026  
CA INDEXING IS CURRENT THROUGH 12 Jul 2005 (20050712/UPCA)  
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 12 Jul 2005 (20050712/PD)  
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Jun 2005  
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Jun 2005

USPAT2 is a companion file to USPATFULL. USPAT2 contains full text  
of the latest US publications, starting in 2001, for the inventions  
covered in USPATFULL. USPATFULL contains full text of the original  
published US patents from 1971 to date and the original applications  
from 2001. In addition, a USPATFULL record for an invention contains  
a complete list of publications that may be searched in standard  
search fields, e.g., /PN, /PK; etc.

USPATFULL and USPAT2 can be accessed and searched together through  
the new cluster USPATALL. Type FILE USPATALL to enter this cluster.

Use USPATALL when searching terms such as patent assignees,  
classifications, or claims, that may potentially change from the  
earliest to the latest publication.

=> file caplus medline embase biosis uspatall

FILE 'CAPLUS' ENTERED AT 15:41:45 ON 12 JUL 2005  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'MEDLINE' ENTERED AT 15:41:45 ON 12 JUL 2005

FILE 'EMBASE' ENTERED AT 15:41:45 ON 12 JUL 2005  
 COPYRIGHT (C) 2005 Elsevier Inc. All rights reserved.

FILE 'BIOSIS' ENTERED AT 15:41:45 ON 12 JUL 2005  
 Copyright (c) 2005 The Thomson Corporation

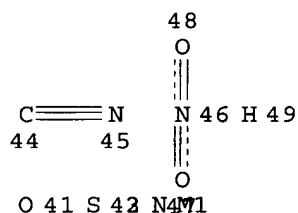
FILE 'USPATFULL' ENTERED AT 15:41:45 ON 12 JUL 2005  
 CA INDEXING COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPAT2' ENTERED AT 15:41:45 ON 12 JUL 2005  
 CA INDEXING COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

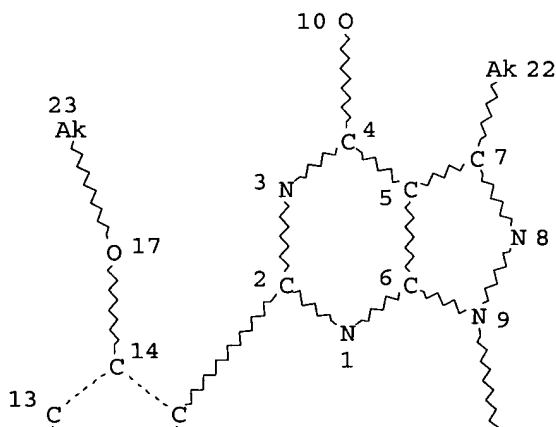
=> s L3  
 L10 18 L3

=> dup remove L10  
 PROCESSING COMPLETED FOR L10  
 L11 13 DUP REMOVE L10 (5 DUPLICATES REMOVED)  
 ANSWERS '1-9' FROM FILE CAPLUS  
 ANSWERS '10-13' FROM FILE USPATFULL

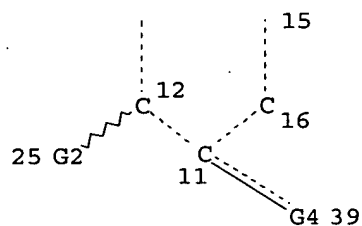
=> d que L11  
 L1 STR



H 40



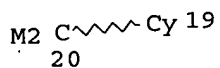
Page 1-A



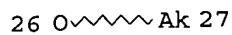
ζ  
G1 21

Ak 18

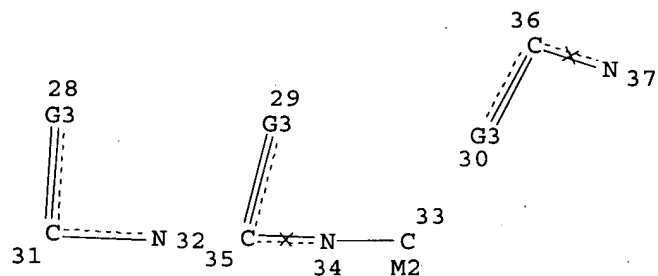
Ak 24



Hy 38



Page 2-A



Page 3-A

VAR G1=18/20

VAR G2=40/24

VAR G3=41/42/43

VAR G4=44/46/49/26/31/33/37/38

NODE ATTRIBUTES:

HCOUNT	IS	M2	AT	20
HCOUNT	IS	M2	AT	33
HCOUNT	IS	M1	AT	43
NSPEC	IS	R	AT	1
NSPEC	IS	R	AT	2
NSPEC	IS	R	AT	3
NSPEC	IS	R	AT	4
NSPEC	IS	R	AT	5
NSPEC	IS	R	AT	6
NSPEC	IS	R	AT	7
NSPEC	IS	R	AT	8
NSPEC	IS	R	AT	9

```

NSPEC   IS C      AT 10
NSPEC   IS R      AT 11
NSPEC   IS R      AT 12
NSPEC   IS R      AT 13
NSPEC   IS R      AT 14
NSPEC   IS R      AT 15
NSPEC   IS R      AT 16
NSPEC   IS C      AT 17
NSPEC   IS C      AT 18
NSPEC   IS C      AT 19
NSPEC   IS C      AT 20
NSPEC   IS C      AT 21
NSPEC   IS C      AT 22
NSPEC   IS C      AT 23
NSPEC   IS C      AT 24
NSPEC   IS C      AT 25
NSPEC   IS C      AT 26
NSPEC   IS C      AT 27
NSPEC   IS C      AT 28
NSPEC   IS C      AT 29
NSPEC   IS C      AT 30
NSPEC   IS C      AT 31
NSPEC   IS C      AT 32
NSPEC   IS C      AT 33
NSPEC   IS RC     AT 34
NSPEC   IS RC     AT 35
NSPEC   IS RC     AT 36
NSPEC   IS RC     AT 37
NSPEC   IS C      AT 38
NSPEC   IS C      AT 39
CONNECT IS E3 RC AT 4
CONNECT IS E1 RC AT 10
DEFAULT MLEVEL IS ATOM
MLEVEL  IS CLASS AT 10 17 18 20 22 23 24 26 27 31 32 33 34 35 36 37 40
        41 42 43 44 45 46 47 48 49
GGCAT   IS LOC    AT 18
GGCAT   IS UNS    AT 19
DEFAULT ECLEVEL IS LIMITED
ECOUNT  IS M1-X6 C AT 18
ECOUNT  IS M1-X6 C AT 24

```

## GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 49

## STEREO ATTRIBUTES: NONE

```

L3      91 SEA FILE=REGISTRY SSS FUL L1
L10     18 SEA L3
L11     13 DUP REMOVE L10 (5 DUPLICATES REMOVED)

```

## =&gt; FIL STNGUIDE

FILE 'STNGUIDE' ENTERED AT 15:45:53 ON 12 JUL 2005  
USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT  
COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY, JAPAN SCIENCE  
AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: Jul 8, 2005 (20050708/UP).

=&gt; d ibib abs hitstr L11 1-13

YOU HAVE REQUESTED DATA FROM FILE 'CAPLUS, USPATFULL' - CONTINUE? (Y)/N:y

L11 ANSWER 1 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 3

ACCESSION NUMBER: 2002:241329 CAPLUS

DOCUMENT NUMBER: 136:284433

TITLE: Administration of phosphodiesterase inhibitors for the treatment of premature ejaculation

INVENTOR(S): Wilson, Leland F.; Doherty, Paul C.; Place, Virgil A.; Smith, William L.; Abdel-Hamid, Abdou Ali Ibrahim Aboubakr

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 21 pp., Cont.-in-part of U.S. Ser. No. 467,094.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

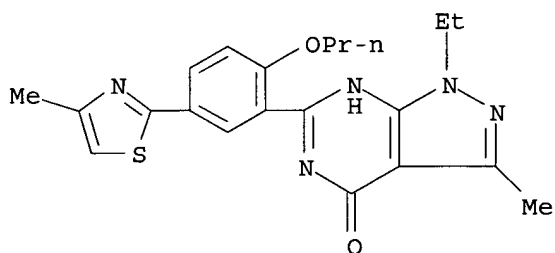
FAMILY ACC. NUM. COUNT: 7

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002037828	A1	20020328	US 2001-888250	20010621
US 6403597	B2	20020611		
US 6037346	A	20000314	US 1998-181070	19981027
US 6548490	B1	20030415	US 1999-467094	19991210
CA 2451152	AA	20030103	CA 2002-2451152	20020325
WO 2003000343	A2	20030103	WO 2002-US9415	20020325
WO 2003000343	A3	20040325		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1418896	A2	20040519	EP 2002-717729	20020325
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2005519851	T2	20050707	JP 2003-506984	20020325
PRIORITY APPLN. INFO.:				
			US 1997-958816	B2 19971028
			US 1998-181070	A2 19981027
			US 1999-467094	A2 19991210
			US 2001-888250	A 20010621
			WO 2002-US9415	W 20020325

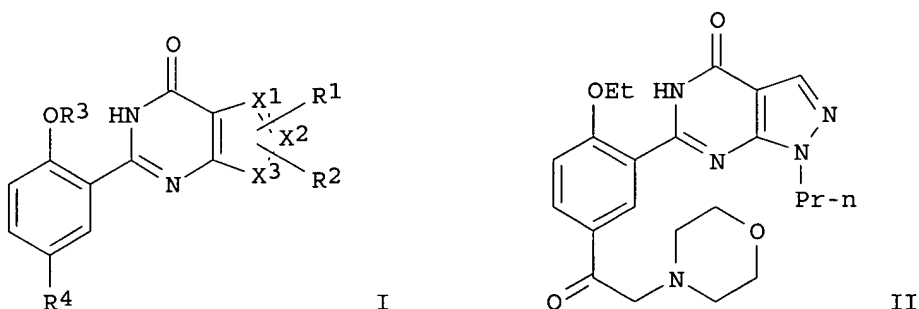
AB A method is provided for treatment of premature ejaculation by administration of a phosphodiesterase inhibitor, e.g., an inhibitor of a Type III, Type IV, or Type V phosphodiesterase. In a preferred embodiment, administration is on as "as needed" basis, i.e., the drug is administered immediately or several hours prior to sexual activity. Pharmaceutical formulations and packaged kits are also provided. Zaprinas 1.0, mannitol 1.0, microcryst. cellulose 2.0, and magnesium stearate 10 mg are blended in a suitable mixer and then compressed into

sublingual tablets. Each sublingual tablet contains 10 mg zaprinast.  
 IT **168464-60-6**  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (administration of phosphodiesterase inhibitors for treatment of  
 premature ejaculation)  
 RN 168464-60-6 CAPLUS  
 CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1-ethyl-1,5-dihydro-3-methyl-6-[5-(4-methyl-2-thiazolyl)-2-propoxyphenyl]- (9CI) (CA INDEX NAME)



L11 ANSWER 2 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 4  
 ACCESSION NUMBER: 2001:179819 CAPLUS  
 DOCUMENT NUMBER: 134:222726  
 TITLE: Preparation of phenyl purinone derivatives for the  
 treatment of precancerous lesions  
 INVENTOR(S): Piazza, Gary A.; Pamukcu, Rifat  
 PATENT ASSIGNEE(S): Cell Pathways, Inc., USA  
 SOURCE: U.S., 31 pp., Cont. of U. S. Ser. No. 472,804.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

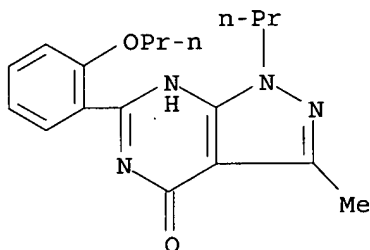
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6200980	B1	20010313	US 1997-842854	19970417
PRIORITY APPLN. INFO.:			US 1995-472804	A1 19950607
OTHER SOURCE(S):	MARPAT	134:222726		
GI				



AB Title compds. (I) [wherein R1 = H, (fluoro)alkyl, or cycloalkyl; R2 = H,

(fluoro)alkyl, or cycloalkylalkyl; R3 = (fluoro)alkyl, cycloalkyl(alkyl), alkenyl or alkynyl; R4 = halo or (un)substituted alkyl, alkenyl, alkanoyl, carbamoyl, carboxy, amino, sulfamoylamino, Ph, pyridyl, or imidazolyl, etc.; X1-X3 = independently N or C with the proviso that at least 2 of X1-X3 = N] were prepared for inhibiting the growth of neoplastic cells. For example, the 4H-pyrazolo[3,4-d]pyrimidin-4-one (II) was formed in a multi-step synthesis involving amidation of 5-amino-1-propylpyrazole-4-carboxamide with 2-ethoxybenzoyl chloride (74%), cyclization using aqueous NaOH (89%), acetylation with bromoacetyl bromide in the presence of AlCl3 (92%), and addition of morpholine in K2CO3 and MeCN (85%). In a cell growth inhibition assay examining the effects of I on human colon carcinoma cells, administration of 40 µM of 2-(2-propoxyphenyl)-8-azapurin-6-one resulted in 30% apoptotic cells and 2% necrosis compared to 7% and 5%, resp., for the control. Pharmaceutical compns. for oral and parenteral administration of I are also included.

IT 148872-11-1P, 3-Methyl-6-(2-propoxyphenyl)-1-propyl-1,5-dihydro-4H-pyrazolo[3,4-d]pyrimidin-4-one  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (preparation of Ph purinone derivs. for treatment of precancerous lesions)  
 RN 148872-11-1 CAPLUS  
 CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-3-methyl-6-(2-propoxyphenyl)-1-propyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 137 THERE ARE 137 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 3 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2002:314395 CAPLUS  
 DOCUMENT NUMBER: 136:335540  
 TITLE: Use of PDE V inhibitors for improved fecundity in mammals  
 INVENTOR(S): Westbrook, Simon Lempriere; Zanzinger, Johannes Friedrich  
 PATENT ASSIGNEE(S): Pfizer Limited, UK; Pfizer Inc.  
 SOURCE: Eur. Pat. Appl., 20 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----

EP 1199070	A2	20020424	EP 2001-308684	20011011
EP 1199070	A3	20040317		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
CA 2359383	AA	20020420	CA 2001-2359383	20011018
US 2003018036	A1	20030123	US 2001-982445	20011018
US 6548508	B2	20030415		
AU 2001081523	A5	20020502	AU 2001-81523	20011019
JP 2002220346	A2	20020809	JP 2001-322195	20011019
ZA 2001008617	A	20030422	ZA 2001-8617	20011019
NZ 514947	A	20050324	NZ 2001-514947	20011019
US 2003018037	A1	20030123	US 2002-229534	20020827
US 6743799	B2	20040601		
US 2004167095	A1	20040826	US 2004-778866	20040212
PRIORITY APPLN. INFO.:			GB 2000-25782	A 20001020
			US 2000-253338P	P 20001128
			US 2001-982445	A1 20011018
			US 2002-229534	A1 20020827

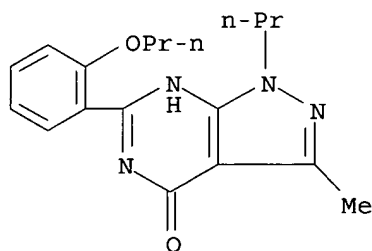
AB The invention relates to the use of a cyclic guanosine 3',5'-monophosphate phosphodiesterase type five (cGMP PDE V) inhibitor for increasing fecundity in a mammal by one or more of (a) promoting the growth of an oocyte, zygote, blastocyst, embryo and/or fetus, (b) increasing the rate or probability of survival of an embryo and/or fetus and (c) increasing the birth weight of a progeny, or for increasing milk productivity. I.v. and tablet formulations are exemplified. Formulations and packs containing the PDE V inhibitors for pharmaceutical or veterinary use are claimed.

IT 148872-11-1

RL: AGR (Agricultural use); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(use of PDE V inhibitors for improved fecundity in mammals)

RN 148872-11-1 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-3-methyl-6-(2-propoxyphenyl)-1-propyl- (9CI) (CA INDEX NAME)



L11 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:277701 CAPLUS

DOCUMENT NUMBER: 132:293775

TITLE: Preparation of pyrazolopyrimidinones as cGMP PDE5 inhibitors for the treatment of sexual dysfunction

INVENTOR(S): Bunnage, Mark Edward; Street, Stephen Derek Albert; Mathias, John Paul; Wood, Anthony

PATENT ASSIGNEE(S): Pfizer Inc., USA; Pfizer Limited

SOURCE: Eur. Pat. Appl., 40 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English



FAMILY ACC. NUM. COUNT: 1

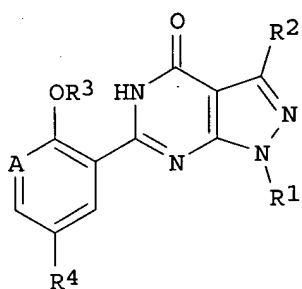
## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 995751	A2	20000426	EP 1999-308158	19991015
EP 995751	A3	20001018		
EP 995751	B1	20050629		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
CA 2287562	AA	20000423	CA 1999-2287562	19991022
BR 9905109	A	20000926	BR 1999-5109	19991022
US 6407114	B1	20020618	US 1999-425095	19991022
JP 2000128884	A2	20000509	JP 1999-302064	19991025
MX 9909816	A	20000630	MX 1999-9816	19991025
			GB 1998-23103	A 19981023

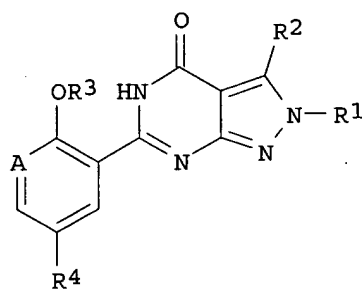
PRIORITY APPLN. INFO.:

OTHER SOURCE(S): MARPAT 132:293775

GI



I



II

AB The title compds. [I or II; A = CH, N; R1, R2 = H, (un)substituted alkyl, (un)substituted Het, etc.; R3 = H, (un)substituted alkyl; R4 = SO2NR12R13; NR12R13 = Het; Het = 4-12 membered heterocyclic group containing at least one N atom and, optionally, one or more heteroatoms selected from N, S and O], useful in the curative and prophylactic treatment of a medical condition for which inhibition of a cyclic guanosine 3',5'-monophosphate phosphodiesterase (e.g. cGMP PDE5) is desired, were prepared E.g., a multi-step synthesis of I [A = CH; R1 = Pr; R2 = 2-pyridylmethyl; R3 = Pr; R4 = 4-ethylpiperazin-1-ylsulfonyl] which showed IC50 of 9.30 nM against cGMP PDE5, was given.

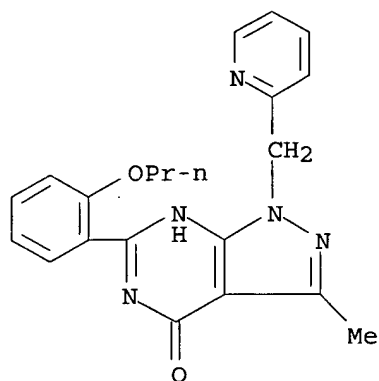
IT 168464-80-0P 264920-04-9P 264920-08-3P  
 264920-09-4P 264920-11-8P 264920-13-0P  
 264920-15-2P 264920-17-4P 264920-18-5P  
 264920-19-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of pyrazolopyrimidinones as cGMP PDE5 inhibitors for the treatment of sexual dysfunction)

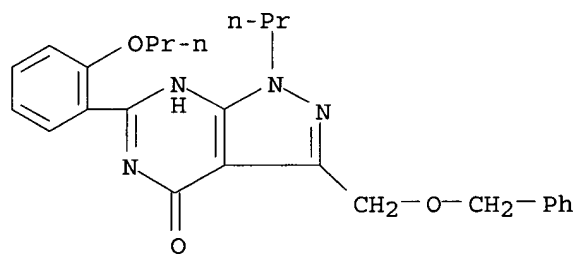
RN 168464-80-0 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-3-methyl-6-(2-propoxyphenyl)-1-(2-pyridinylmethyl)- (9CI) (CA INDEX NAME)



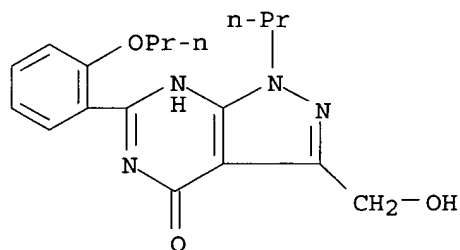
RN 264920-04-9 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-3-[(phenylmethoxy)methyl]-6-(2-propoxyphenyl)-1-propyl- (9CI) (CA INDEX NAME)



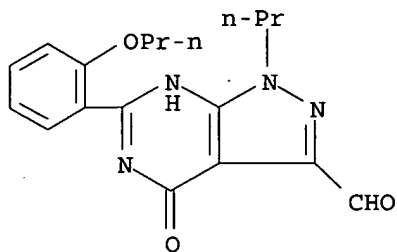
RN 264920-08-3 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-3-(hydroxymethyl)-6-(2-propoxyphenyl)-1-propyl- (9CI) (CA INDEX NAME)



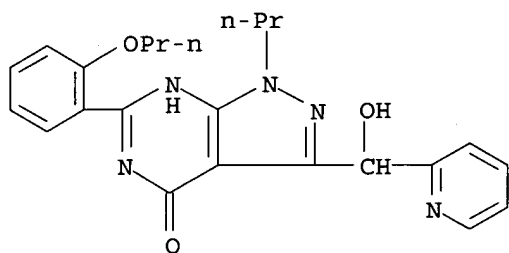
RN 264920-09-4 CAPLUS

CN 1H-Pyrazolo[3,4-d]pyrimidine-3-carboxaldehyde, 4,5-dihydro-4-oxo-6-(2-propoxyphenyl)-1-propyl- (9CI) (CA INDEX NAME)



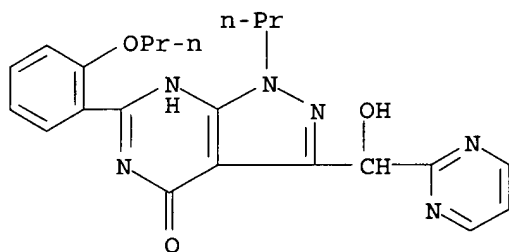
RN 264920-11-8 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-3-(hydroxy-2-pyridinylmethyl)-6-(2-propoxyphenyl)-1-propyl- (9CI) (CA INDEX NAME)



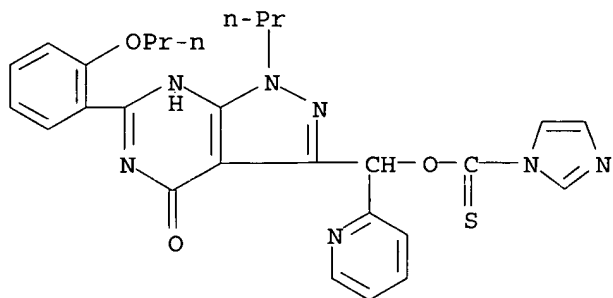
RN 264920-13-0 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-3-(hydroxy-2-pyrimidinylmethyl)-6-(2-propoxyphenyl)-1-propyl- (9CI) (CA INDEX NAME)



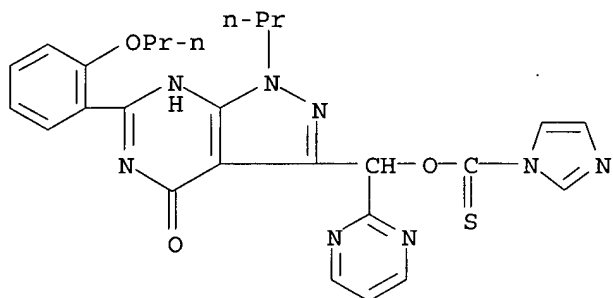
RN 264920-15-2 CAPLUS

CN 1H-Imidazole-1-carbothioic acid, O-[[4,5-dihydro-4-oxo-6-(2-propoxyphenyl)-1-propyl-1H-pyrazolo[3,4-d]pyrimidin-3-yl]-2-pyridinylmethyl] ester (9CI) (CA INDEX NAME)



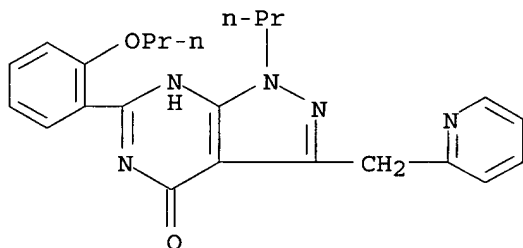
RN 264920-17-4 CAPLUS

CN 1H-Imidazole-1-carbothioic acid, O-[[4,5-dihydro-4-oxo-6-(2-propoxyphenyl)-1-propyl-1H-pyrazolo[3,4-d]pyrimidin-3-yl]-2-pyrimidinylmethyl] ester (9CI) (CA INDEX NAME)



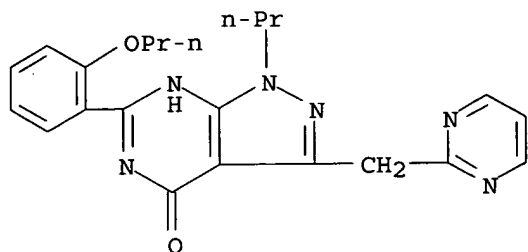
RN 264920-18-5 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-6-(2-propoxyphenyl)-1-propyl-3-(2-pyridinylmethyl)- (9CI) (CA INDEX NAME)



RN 264920-19-6 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-6-(2-propoxyphenyl)-1-propyl-3-(2-pyrimidinylmethyl)- (9CI) (CA INDEX NAME)



L11 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1999:300912 CAPLUS

DOCUMENT NUMBER: 131:96886

TITLE: Automation of metabolic stability studies in microsomes, cytosol and plasma using a 215 Gilson liquid handler

AUTHOR(S): Linget, Jean-Michel; du Vignaud, Pierre

CORPORATE SOURCE: Laboratoire de recherche Glaxo Wellcome France, Les Ulis, 91951, Fr.

SOURCE: Journal of Pharmaceutical and Biomedical Analysis (1999), 19(6), 893-901

CODEN: JPBADA; ISSN: 0731-7085

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A 215 Gilson liquid handler was used to automate enzymic incubations using microsomes, cytosol and plasma. The design of automated protocols are described. They were based on the use of 96 deep well plates and on HPLC-based methods for assaying the substrate. The assessment of those protocols was made with comparison between manual and automated incubations, reliability and reproducibility of automated incubations in microsomes and cytosol. Examples of the use of those programs in metabolic studies in drug research, i.e. metabolic screening in microsomes and plasma were shown. Even rapid processes (with disappearance half lives as low as 1 min) can be analyzed. This work demonstrates how stability studies can be automated to save time, render expts. involving human biol. media less hazardous and may be improve inter-laboratory reproducibility.

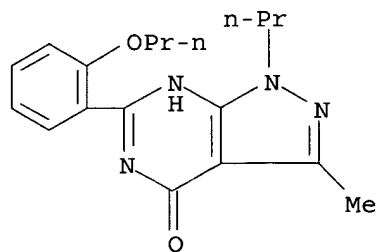
IT 148872-11-1 168464-99-1 175406-88-9  
175406-89-0

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(test compound; automation of drug metabolic stability studies in microsomes, cytosol and plasma using a 215 Gilson liquid handler)

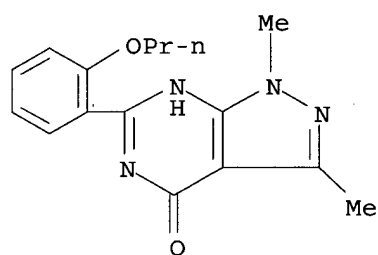
RN 148872-11-1 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-3-methyl-6-(2-propoxyphenyl)-1-propyl- (9CI) (CA INDEX NAME)



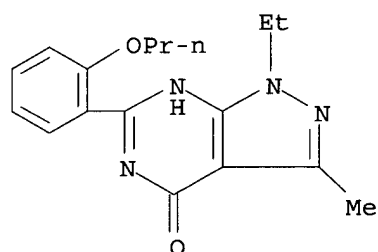
RN 168464-99-1 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-1,3-dimethyl-6-(2-propoxyphenyl)- (9CI) (CA INDEX NAME)



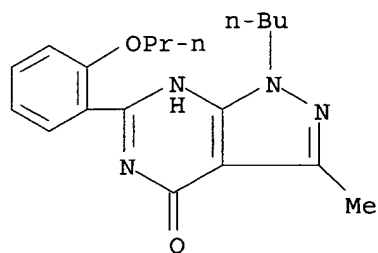
RN 175406-88-9 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1-ethyl-1,5-dihydro-3-methyl-6-(2-propoxyphenyl)- (9CI) (CA INDEX NAME)



RN 175406-89-0 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1-butyl-1,5-dihydro-3-methyl-6-(2-propoxyphenyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1996:751800 CAPLUS

DOCUMENT NUMBER: 126:31225

TITLE: Preparation of 1H-pyrazolo[3,4-d]pyrimidin-4-one derivatives as phosphodiesterase inhibitors

INVENTOR(S): Oota, Tomoki; Taguchi, Minoru; Kawashima, Yutaka; Hatayama, Katsuo; Tomizawa, Kazuyuki

PATENT ASSIGNEE(S): Taisho Pharma Co Ltd, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

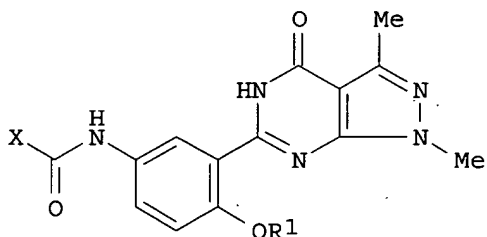
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08253484	A2	19961001	JP 1996-5930	19960117
PRIORITY APPLN. INFO.:			JP 1996-5930	A 19960117
			JP 1995-6986	19950120
OTHER SOURCE(S):	MARPAT	126:31225		
GI				



I

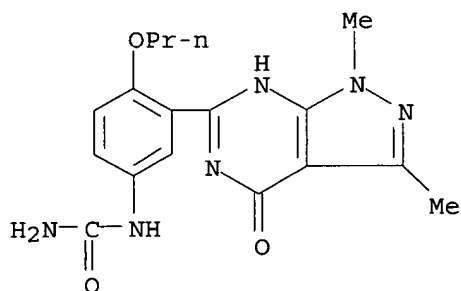
AB Title compds. I [R1 = C1-4 alkyl; X = phenoxy, NR2R3; R2, R3 = H, C2-4 hydroxyalkyl, or NR2R3 = morpholino, piperidino, etc.], phosphodiesterase inhibitors and therefore useful for treatment of hypertension and other cardiovascular diseases, (no data), are prepared Thus, I [R1 = Pr, X = PhO] was prepared from 6-(5-amino-2-propoxyphenyl)-4,5-dihydro-1,3-dimethyl-1H-pyrazolo[3,4-d]pyrimidin-4-one (preparation given) and Ph chloroformate. This was further reacted with morpholine to give I [R1 = Pr, X = morpholino]. In an in vitro study, this had an IC50 of 2.4  $\mu$ M against phosphodiesterase.

IT 168464-46-8P 184356-69-2P 184356-70-5P  
184356-71-6P 184356-72-7P 184356-74-9P  
184356-75-0P 184356-76-1P 184356-77-2P  
184356-78-3P 184356-79-4P 184356-80-7P  
184356-81-8P 184356-82-9P 184356-83-0P  
184356-84-1P 184356-85-2P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of 1H-pyrazolo[d]pyrimidinone derivs. as phosphodiesterase inhibitors)

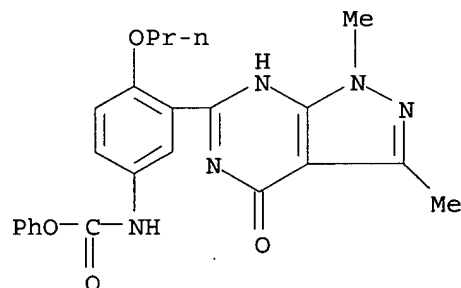
RN 168464-46-8 CAPLUS

CN Urea, [3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxyphenyl]- (9CI) (CA INDEX NAME)



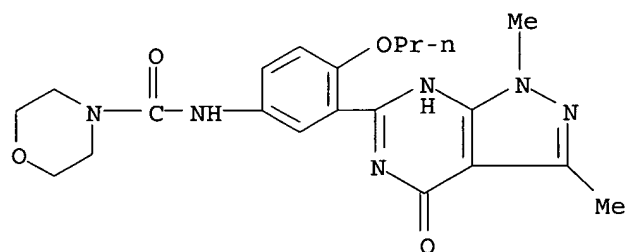
RN 184356-69-2 CAPLUS

CN Carbamic acid, [3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxyphenyl]-, phenyl ester (9CI) (CA INDEX NAME)



RN 184356-70-5 CAPLUS

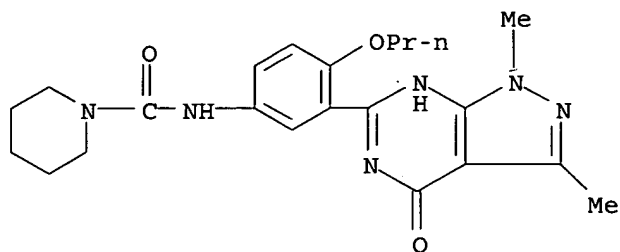
CN 4-Morpholinecarboxamide, N-[3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxyphenyl]- (9CI) (CA INDEX NAME)



RN 184356-71-6 CAPLUS

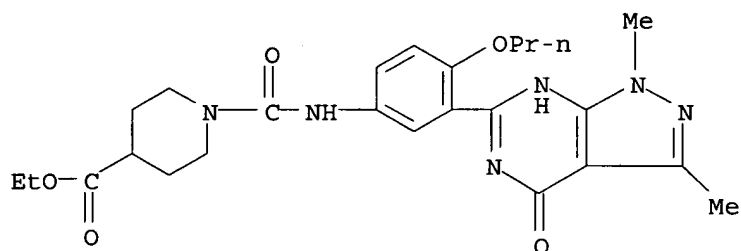
CN 1-Piperidinecarboxamide, N-[3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxyphenyl]- (9CI) (CA INDEX NAME)





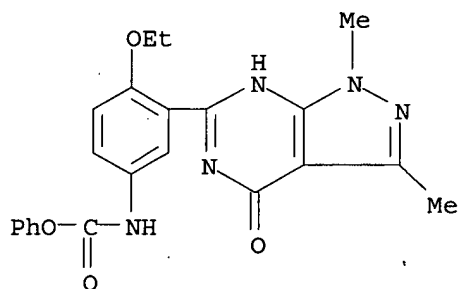
RN 184356-72-7 CAPLUS

CN 4-Piperidinecarboxylic acid, 1-[[[3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxyphenyl]amino]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)



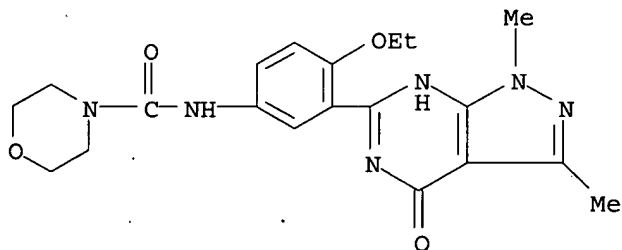
RN 184356-74-9 CAPLUS

CN Carbamic acid, [3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-ethoxyphenyl]-, phenyl ester (9CI) (CA INDEX NAME)



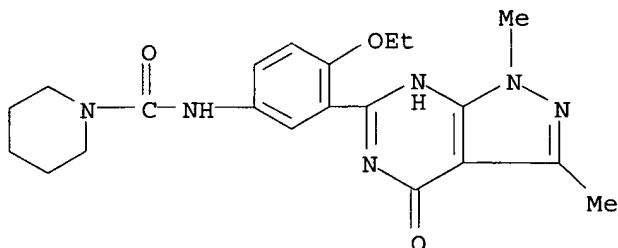
RN 184356-75-0 CAPLUS

CN 4-Morpholinecarboxamide, N-[3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-ethoxyphenyl]- (9CI) (CA INDEX NAME)



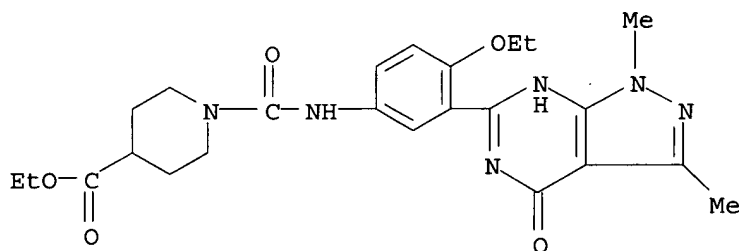
RN 184356-76-1 CAPLUS

CN 1-Piperidinecarboxamide, N-[3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-ethoxyphenyl]- (9CI) (CA INDEX NAME)



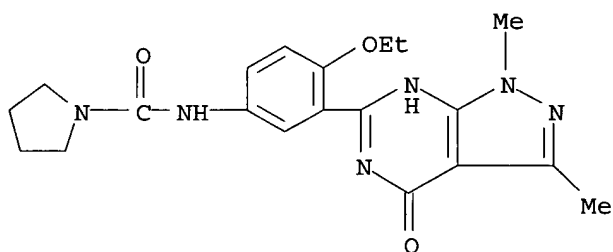
RN 184356-77-2 CAPLUS

CN 4-Piperidinecarboxylic acid, 1-[[[3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-ethoxyphenyl]amino]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)



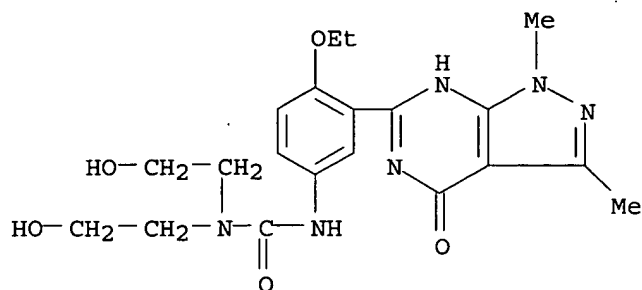
RN 184356-78-3 CAPLUS

CN 1-Pyrrolidinecarboxamide, N-[3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-ethoxyphenyl]- (9CI) (CA INDEX NAME)



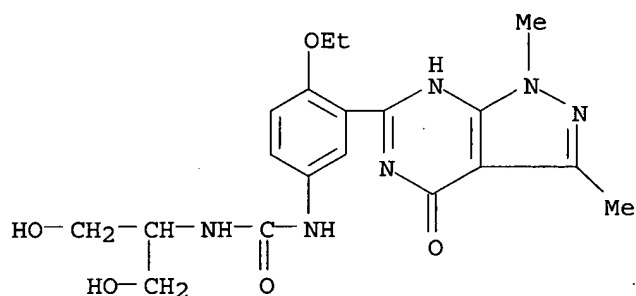
RN 184356-79-4 CAPLUS

CN Urea, N'-[3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-ethoxyphenyl]-N,N-bis(2-hydroxyethyl)- (9CI) (CA INDEX NAME)



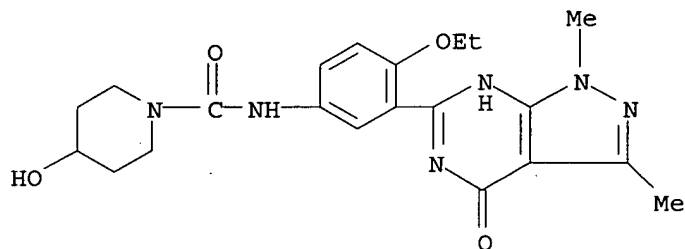
RN 184356-80-7 CAPLUS

CN Urea, N-[3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-ethoxyphenyl]-N'-(2-hydroxy-1-(hydroxymethyl)ethyl)- (9CI) (CA INDEX NAME)



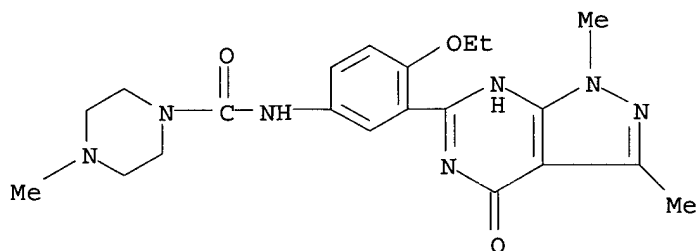
RN 184356-81-8 CAPLUS

CN 1-Piperidinecarboxamide, N-[3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-ethoxyphenyl]-4-hydroxy- (9CI) (CA INDEX NAME)



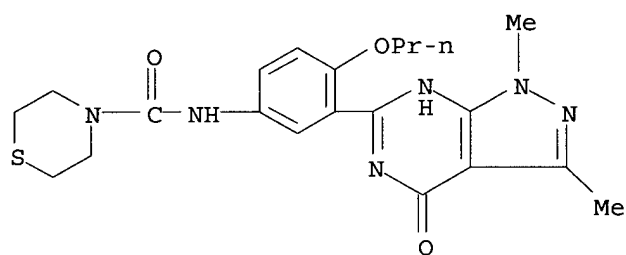
RN 184356-82-9 CAPLUS

CN 1-Piperazinecarboxamide, N-[3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-ethoxyphenyl]-4-methyl- (9CI) (CA INDEX NAME)



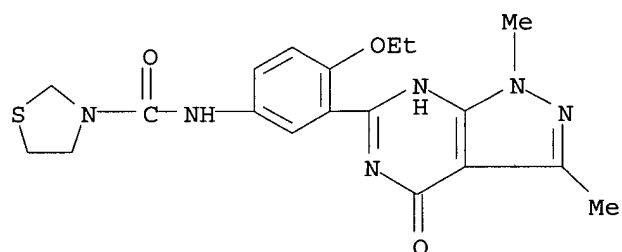
RN 184356-83-0 CAPLUS

CN 4-Thiomorpholinecarboxamide, N-[3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxyphenyl]- (9CI) (CA INDEX NAME)



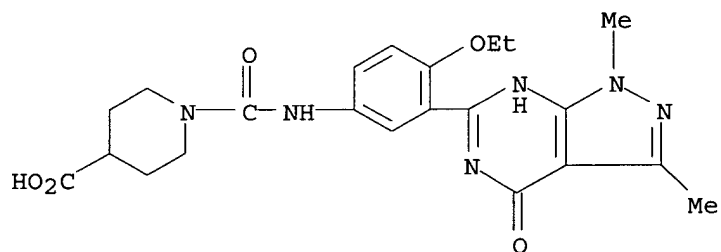
RN 184356-84-1 CAPLUS

CN 3-Thiazolidinecarboxamide, N-[3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-ethoxyphenyl]- (9CI) (CA INDEX NAME)



RN 184356-85-2 CAPLUS

CN 4-Piperidinecarboxylic acid, 1-[[[3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-ethoxyphenyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

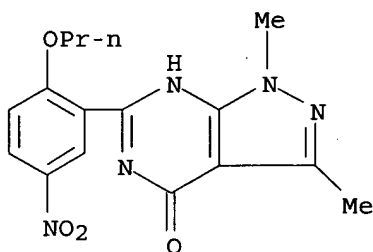


IT 168464-24-2P 168464-29-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(preparation of 1H-pyrazolo[d]pyrimidinone derivs. as phosphodiesterase  
inhibitors)

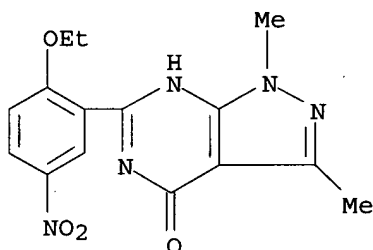
RN 168464-24-2 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-1,3-dimethyl-6-(5-nitro-2-  
propoxyphenyl)- (9CI) (CA INDEX NAME)



RN 168464-29-7 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 6-(2-ethoxy-5-nitrophenyl)-1,5-dihydro-  
1,3-dimethyl- (9CI) (CA INDEX NAME)



L11 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1996:175895 CAPLUS

DOCUMENT NUMBER: 124:249654

TITLE: Synthesis and Cyclic GMP Phosphodiesterase Inhibitory  
Activity of a Series of 6-Phenylpyrazolo[3,4-  
d]pyrimidones

AUTHOR(S): Dumaitre, Bernard; Dodic, Nerina

CORPORATE SOURCE: Glaxo Wellcome Centre de Recherches, Les Ulis, 91951,  
Fr.

SOURCE: Journal of Medicinal Chemistry (1996), 39(8), 1635-44  
CODEN: JMCMAR; ISSN: 0022-2623

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A series of 6-phenylpyrazolo[3,4-d]pyrimidones is described which are  
specific inhibitors of cGMP specific (type V) phosphodiesterase. Enzymic  
and cellular activity as well as in vivo oral antihypertensive activity  
are evaluated. A n-propoxy group at the 2-position of the Ph ring is  
necessary for activity. A series of products substituted at the  
5-position in addition to the 2-n-propoxy was prepared and evaluated. This  
position can accommodate many unrelated groups. Amino derivs. were very

potent but lacked metabolic stability. Substitution by carbon-linked small heterocycles provided both high levels of activity and stability. Cellular activity very often correlated with in vivo activity. Among the compds., 1,3-dimethyl-6-(2-propoxy-5-methanesulfonamidophenyl)-1,5-dihydropyrazolo[3,4-d]pyrimidin-4-one and 1-ethyl-3-methyl-6-(2-propoxy-5-(4-methylthiazol-2-yl)phenyl)-1,5-dihydropyrazolo[3,4-d]pyrimidin-4-one displayed outstanding in vivo activities at 5 mg/kg/os and good metabolic stabilities.

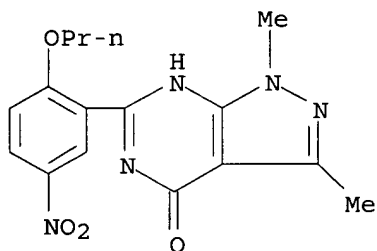
IT 168464-24-2P 168464-25-3P 168464-99-1P  
175406-88-9P

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); RACT (Reactant or reagent); USES (Uses)

(synthesis and cyclic GMP phosphodiesterase inhibitory activity of phenylpyrazolopyrimidones)

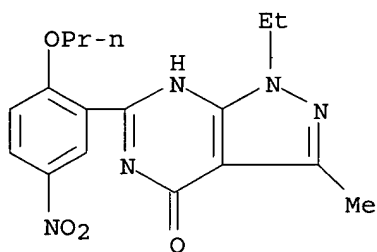
RN 168464-24-2 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-1,3-dimethyl-6-(5-nitro-2-propoxyphenyl)- (9CI) (CA INDEX NAME)



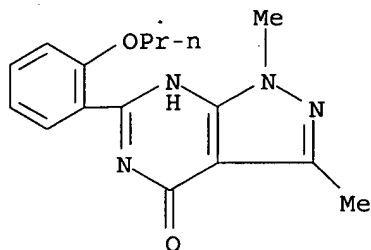
RN 168464-25-3 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1-ethyl-1,5-dihydro-3-methyl-6-(5-nitro-2-propoxyphenyl)- (9CI) (CA INDEX NAME)



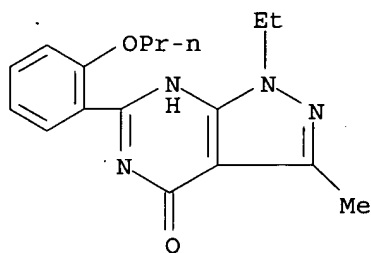
RN 168464-99-1 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-1,3-dimethyl-6-(2-propoxyphenyl)- (9CI) (CA INDEX NAME)



RN 175406-88-9 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1-ethyl-1,5-dihydro-3-methyl-6-(2-propoxyphenyl)- (9CI) (CA INDEX NAME)

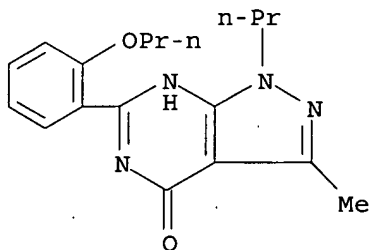


IT 148872-11-1P 168464-38-8P 168464-39-9P  
 168464-41-3P 168464-42-4P 168464-44-6P  
 168464-46-8P 168464-47-9P 168464-51-5P  
 168464-52-6P 168464-53-7P 168464-54-8P  
 168464-58-2P 168464-59-3P 168464-60-6P  
 168464-63-9P 168464-68-4P 168464-71-9P  
 168464-72-0P 168464-74-2P 168464-75-3P  
 168464-76-4P 168464-83-3P 168464-85-5P  
 168464-86-6P 168464-87-7P 168464-88-8P  
 168464-90-2P 168464-91-3P 168464-92-4P  
 168464-95-7P 175406-85-6P 175406-89-0P  
 175406-90-3P

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)  
 (synthesis and cyclic GMP phosphodiesterase inhibitory activity of phenylpyrazolopyrimidones)

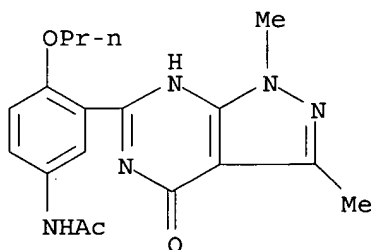
RN 148872-11-1 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-3-methyl-6-(2-propoxyphenyl)-1-propyl- (9CI) (CA INDEX NAME)



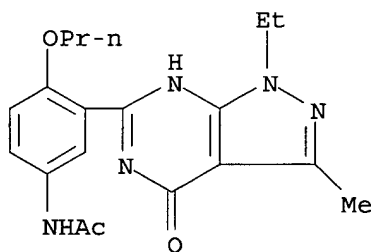
RN 168464-38-8 CAPLUS

CN Acetamide, N-[3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxyphenyl]- (9CI) (CA INDEX NAME)



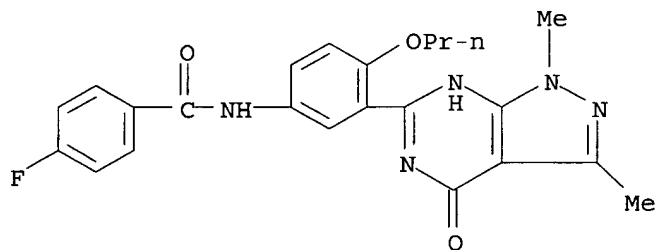
RN 168464-39-9 CAPLUS

CN Acetamide, N-[3-(1-ethyl-4,5-dihydro-3-methyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxyphenyl]- (9CI) (CA INDEX NAME)



RN 168464-41-3 CAPLUS

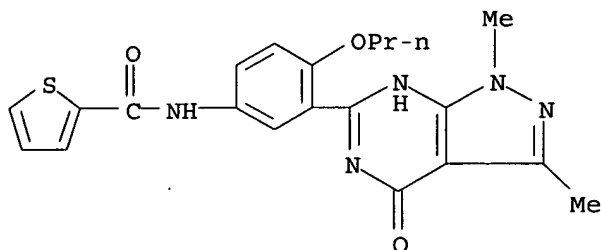
CN Benzamide, N-[3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxyphenyl]-4-fluoro- (9CI) (CA INDEX NAME)



RN 168464-42-4 CAPLUS

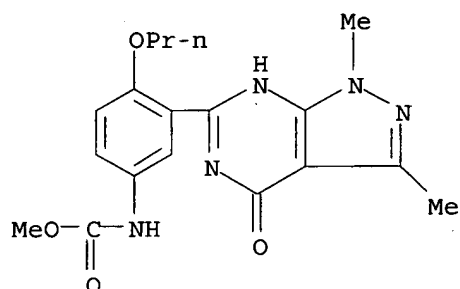
CN 2-Thiophenecarboxamide, N-[3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxyphenyl]- (9CI) (CA INDEX NAME)





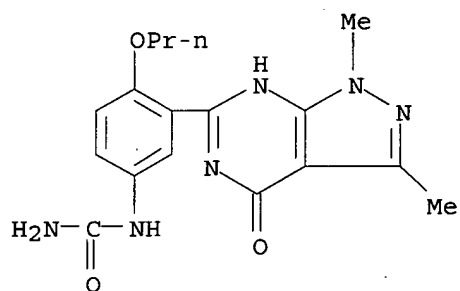
RN 168464-44-6 CAPLUS

CN Carbamic acid, [3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxyphenyl]-, methyl ester (9CI) (CA INDEX NAME)



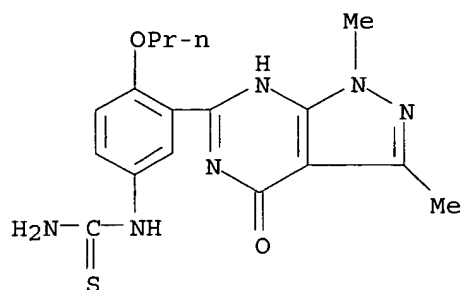
RN 168464-46-8 CAPLUS

CN Urea, [3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxyphenyl]- (9CI) (CA INDEX NAME)



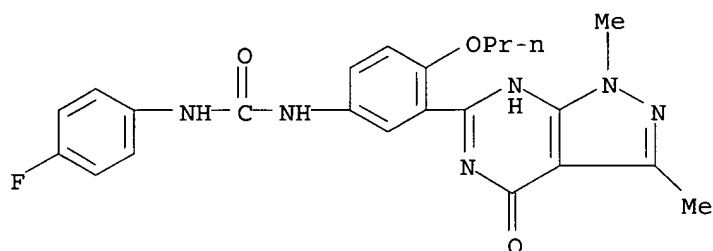
RN 168464-47-9 CAPLUS

CN Thiourea, [3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxyphenyl]- (9CI) (CA INDEX NAME)



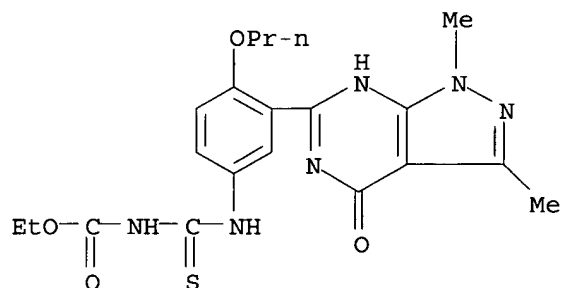
RN 168464-51-5 CAPLUS

CN Urea, N-[3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxyphenyl]-N'-(4-fluorophenyl)- (9CI) (CA INDEX NAME)



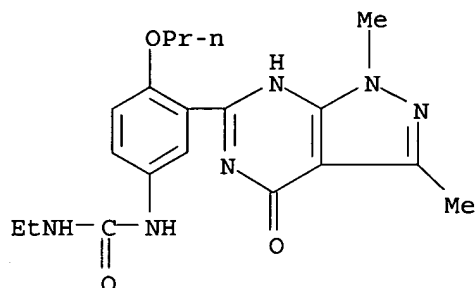
RN 168464-52-6 CAPLUS

CN Carbamic acid, [[[3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxyphenyl]amino]thioxomethyl]-, ethyl ester (9CI) (CA INDEX NAME)



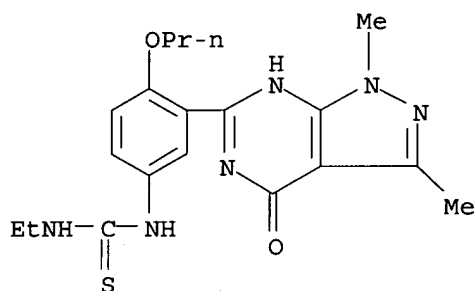
RN 168464-53-7 CAPLUS

CN Urea, N-[3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxyphenyl]-N'-ethyl- (9CI) (CA INDEX NAME)



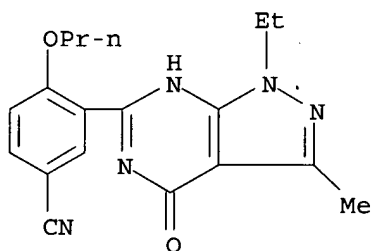
RN 168464-54-8 CAPLUS

CN Thiourea, N-[3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxyphenyl]-N'-ethyl- (9CI) (CA INDEX NAME)



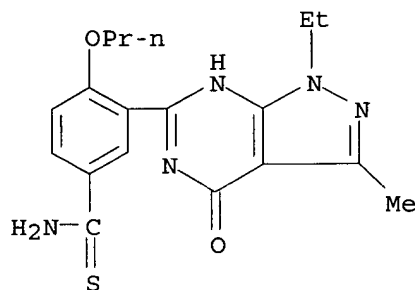
RN 168464-58-2 CAPLUS

CN Benzonitrile, 3-(1-ethyl-4,5-dihydro-3-methyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxy- (9CI) (CA INDEX NAME)



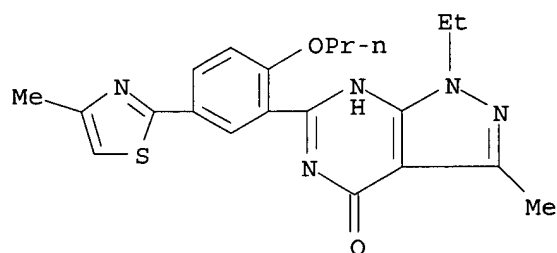
RN 168464-59-3 CAPLUS

CN Benzenecarbothioamide, 3-(1-ethyl-4,5-dihydro-3-methyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxy- (9CI) (CA INDEX NAME)



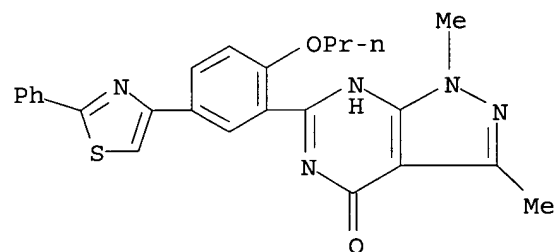
RN 168464-60-6 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1-ethyl-1,5-dihydro-3-methyl-6-[5-(4-methyl-2-thiazolyl)-2-propoxyphenyl]- (9CI) (CA INDEX NAME)



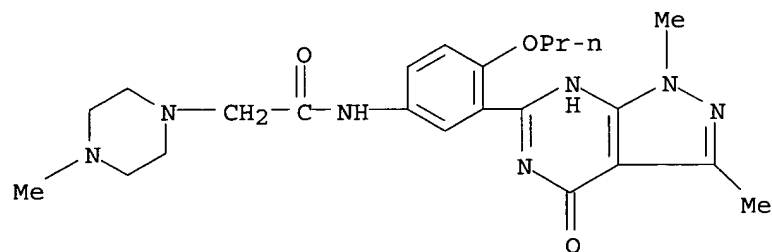
RN 168464-63-9 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-1,3-dimethyl-6-[5-(2-phenyl-4-thiazolyl)-2-propoxyphenyl]- (9CI) (CA INDEX NAME)



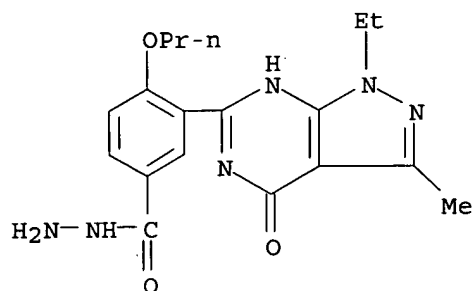
RN 168464-68-4 CAPLUS

CN 1-Piperazineacetamide, N-[3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxyphenyl]-4-methyl- (9CI) (CA INDEX NAME)



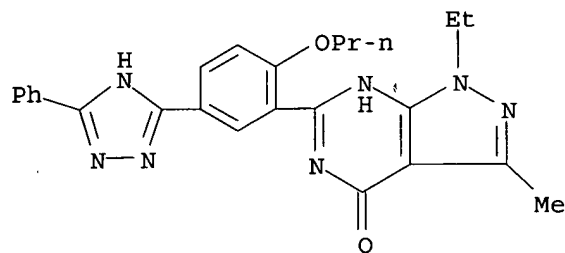
RN 168464-71-9 CAPLUS

CN Benzoic acid, 3-(1-ethyl-4,5-dihydro-3-methyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxy-, hydrazide (9CI) (CA INDEX NAME)



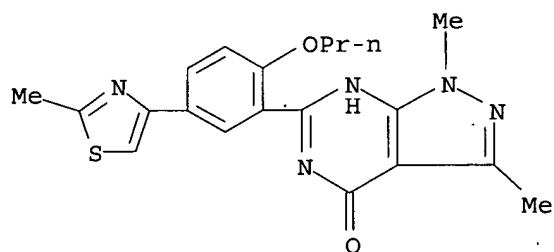
RN 168464-72-0 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1-ethyl-1,5-dihydro-3-methyl-6-[5-(5-phenyl-1H-1,2,4-triazol-3-yl)-2-propoxyphenyl]- (9CI) (CA INDEX NAME)



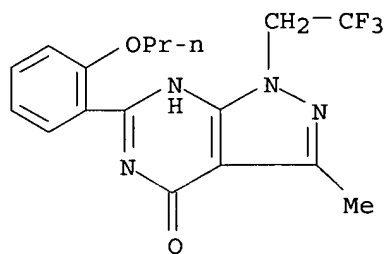
RN 168464-74-2 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-1,3-dimethyl-6-[5-(2-methyl-4-thiazolyl)-2-propoxyphenyl]- (9CI) (CA INDEX NAME)



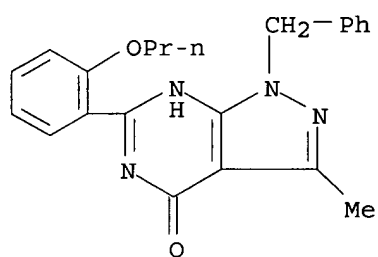
RN 168464-75-3 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-3-methyl-6-(2-propoxyphenyl)-1-(2,2,2-trifluoroethyl)- (9CI) (CA INDEX NAME)



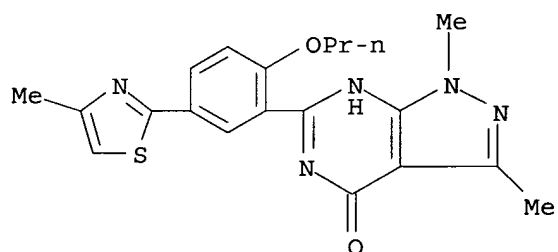
RN 168464-76-4 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-3-methyl-1-(phenylmethyl)-6-(2-propoxyphenyl)- (9CI) (CA INDEX NAME)



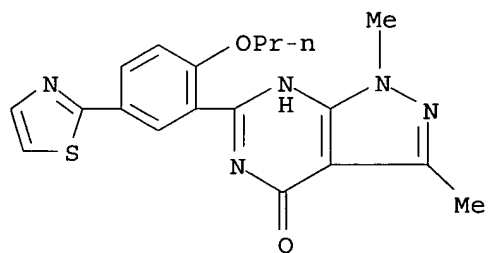
RN 168464-83-3 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-1,3-dimethyl-6-[5-(4-methyl-2-thiazolyl)-2-propoxyphenyl]- (9CI) (CA INDEX NAME)



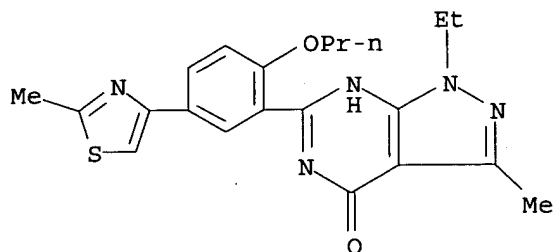
RN 168464-85-5 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-1,3-dimethyl-6-[2-propoxy-5-(2-thiazolyl)phenyl]- (9CI) (CA INDEX NAME)



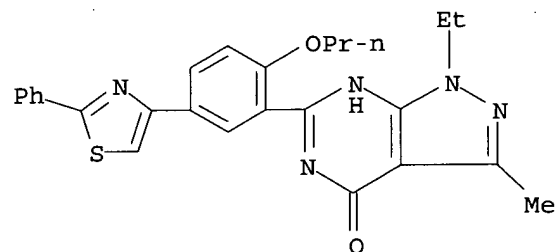
RN 168464-86-6 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1-ethyl-1,5-dihydro-3-methyl-6-[5-(2-methyl-4-thiazolyl)-2-propoxyphenyl]- (9CI) (CA INDEX NAME)



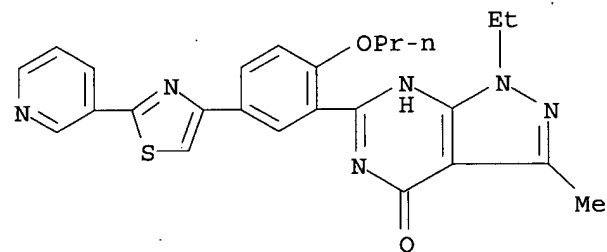
RN 168464-87-7 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1-ethyl-1,5-dihydro-3-methyl-6-[5-(2-phenyl-4-thiazolyl)-2-propoxyphenyl]- (9CI) (CA INDEX NAME)



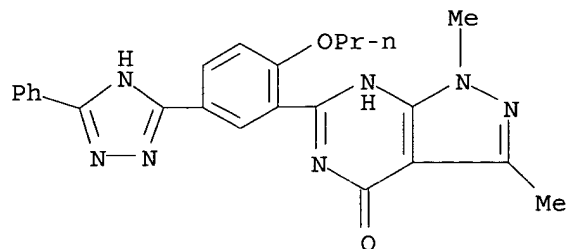
RN 168464-88-8 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1-ethyl-1,5-dihydro-3-methyl-6-[2-propoxy-5-[2-(3-pyridinyl)-4-thiazolyl]phenyl]- (9CI) (CA INDEX NAME)



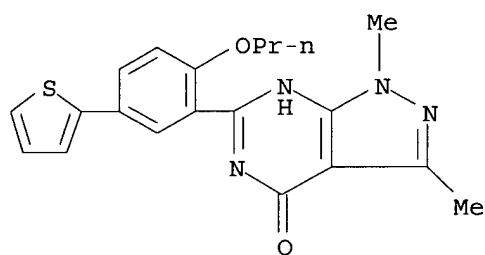
RN 168464-90-2 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-1,3-dimethyl-6-[5-(5-phenyl-1H-1,2,4-triazol-3-yl)-2-propoxyphenyl]- (9CI) (CA INDEX NAME)



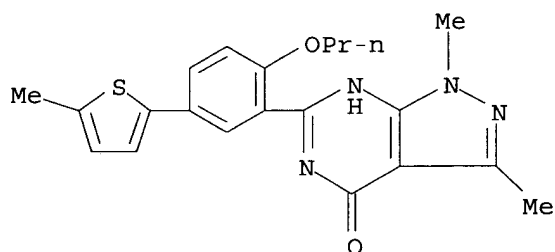
RN 168464-91-3 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-1,3-dimethyl-6-[2-propoxy-5-(2-thienyl)phenyl]- (9CI) (CA INDEX NAME)



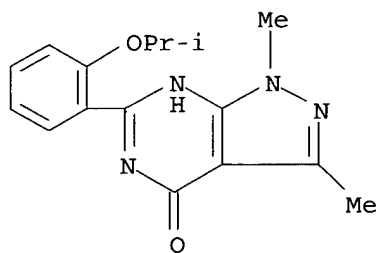
RN 168464-92-4 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-1,3-dimethyl-6-[5-(5-methyl-2-thienyl)-2-propoxyphenyl]- (9CI) (CA INDEX NAME)



RN 168464-95-7 CAPLUS

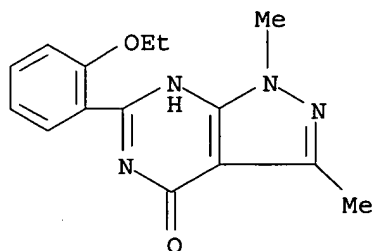
CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-1,3-dimethyl-6-[2-(1-methylethoxy)phenyl]- (9CI) (CA INDEX NAME)





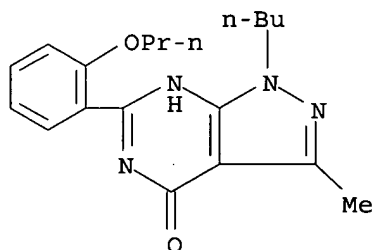
RN 175406-85-6 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 6-(2-ethoxyphenyl)-1,5-dihydro-1,3-dimethyl- (9CI) (CA INDEX NAME)



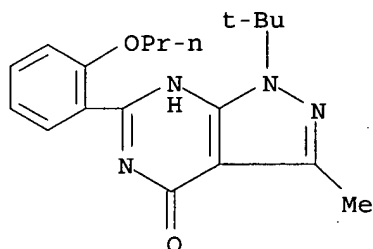
RN 175406-89-0 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1-butyl-1,5-dihydro-3-methyl-6-(2-propoxyphenyl)- (9CI) (CA INDEX NAME)



RN 175406-90-3 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1-(1,1-dimethylethyl)-1,5-dihydro-3-methyl-6-(2-propoxyphenyl)- (9CI) (CA INDEX NAME)



L11 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1995:833039 CAPLUS

DOCUMENT NUMBER: 123:228202

TITLE: Pyrazolopyrimidine derivatives as inhibitors of cGMP-specific PDE

INVENTOR(S): Dumaitre, Bernard Andre; Dodic, Nerina

PATENT ASSIGNEE(S): Laboratoires Glaxo SA, Fr.

SOURCE: Eur. Pat. Appl., 34 pp.

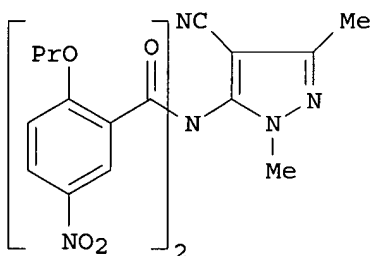
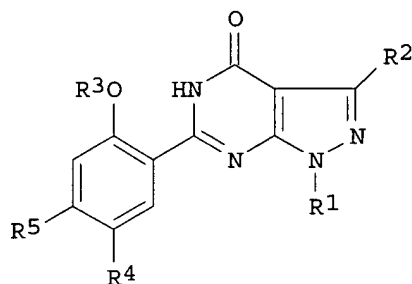
CODEN: EPXXDW

DOCUMENT TYPE: Patent

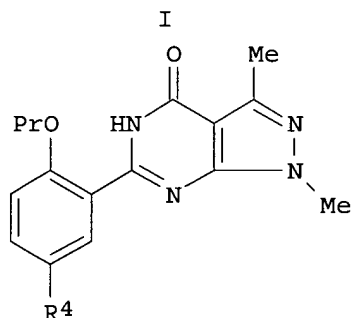
LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 636626	A1	19950201	EP 1994-202083	19940718
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 07070128	A2	19950314	JP 1994-188893	19940719
PRIORITY APPLN. INFO.:			GB 1993-15017	A 19930720
OTHER SOURCE(S):		CASREACT 123:228202; MARPAT 123:228202		

GI



II



III

AB Title derivs. I and their salts and solvates are described [in which R1 = arylmethyl or (fluoro)alkyl; R2 = Me; R3 = alkyl; R4 = NO<sub>2</sub>, cyano, alkoxy, C(:X)NR<sub>6</sub>R<sub>7</sub>, NR<sub>8</sub>R<sub>9</sub>, (CH<sub>2</sub>)<sub>m</sub>NR<sub>10</sub>C(:Y)R<sub>11</sub>, (un)substituted thienyl, thiazolyl, or 1,2,4-triazolyl; or when R1 = arylmethyl or fluoroalkyl then R4 may also = H; R5, R6, R8, R10, R13, R15, R17 = H or alkyl; R7 = H, amino, OH, alkyl, aryl, arylalkyl; R9 = H, alkyl, SO<sub>2</sub>R<sub>12</sub>, CO<sub>2</sub>R<sub>12</sub>, C(:NCN)SR<sub>12</sub> or C(:NCN)NR<sub>13</sub>R<sub>14</sub>; R11 = (halo)alkyl, aryl, arylalkyl, thienyl, NR<sub>15</sub>R<sub>16</sub>, CH<sub>2</sub>NR<sub>17</sub>R<sub>18</sub>; or R10R<sub>11</sub>, R10R<sub>15</sub> = A(CH<sub>2</sub>)<sub>n</sub>; R12 = alkyl, aryl, arylalkyl; R14 = H, alkyl, aryl, arylalkyl; or NR<sub>13</sub>R<sub>14</sub>, NR<sub>15</sub>R<sub>16</sub>, NR<sub>17</sub>R<sub>18</sub> = morpholino, (alkyl)piperazino; R16 = H, alkyl, aryl, arylalkyl, CO<sub>2</sub>R<sub>12</sub>, CH<sub>2</sub>CO<sub>2</sub>R<sub>12</sub>; R18 = H, alkyl, aryl, arylalkyl, COR<sub>12</sub>; A = CH<sub>2</sub>, CO; m = 0-1; n = 1-3; X = S, NH, and also O when R7 = amino; Y = O, S; R4 cannot = NO<sub>2</sub> or NH<sub>2</sub> when R1 = alkyl and R5 = H]. The compds. are potent and selective inhibitors of cyclic guanosine 3',5'-monophosphate specific phosphodiesterase (cGMP-specific PDE) and are useful in a variety of therapeutic areas, including the treatment of cardiovascular disorders. For example, cyclocondensation of MeNHNH<sub>2</sub> with Me(EtO)C:C(CN)<sub>2</sub> gave 5-amino-4-cyano-1,3-dimethylpyrazole, which reacted with 2 equiv 2-propoxy-5-nitrobenzoyl chloride to give cyanopyrazole intermediate II. Cyclization of II in a mixture of 30% H<sub>2</sub>O<sub>2</sub> and 0.5N NaOH at 90° gave title compound III (R4 = NO<sub>2</sub>), which underwent hydrogenation to give III (R4

= NH<sub>2</sub>) and then mesylation with MeSO<sub>2</sub>Cl to give III (R<sub>4</sub> = NHSO<sub>2</sub>Me). The latter 2 examples of III had IC<sub>50</sub> of 1-10 nM against the title enzyme, vs. 200 nM for the known inhibitor zaprinast.

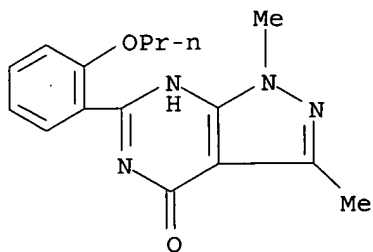
IT 168464-99-1

RL: RCT (Reactant); RACT (Reactant or reagent)

(bromination; preparation of pyrazolopyrimidine derivs. as inhibitors of cGMP-specific PDE)

RN 168464-99-1 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-1,3-dimethyl-6-(2-propoxyphenyl)- (9CI) (CA INDEX NAME)



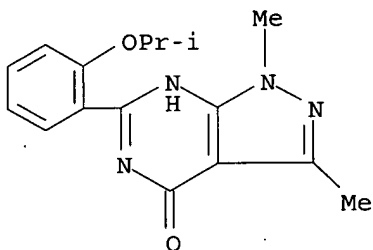
IT 168464-95-7P 168464-96-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; preparation of pyrazolopyrimidine derivs. as inhibitors of cGMP-specific PDE)

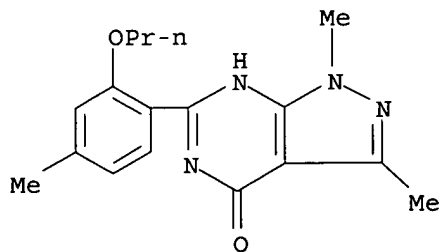
RN 168464-95-7 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-1,3-dimethyl-6-[2-(1-methylethoxy)phenyl]- (9CI) (CA INDEX NAME)



RN 168464-96-8 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-1,3-dimethyl-6-(4-methyl-2-propoxyphenyl)- (9CI) (CA INDEX NAME)



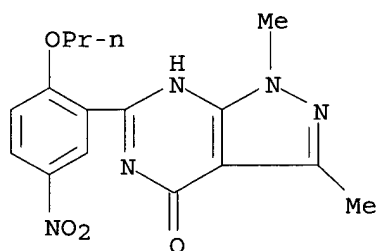
IT 168464-24-2P 168464-25-3P 168464-26-4P  
 168464-29-7P 168464-43-5P 168464-48-0P  
 168464-57-1P 168464-58-2P 168464-59-3P  
 168464-66-2P 168464-71-9P 168464-82-2P  
 168464-89-9P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of pyrazolopyrimidine derivs. as inhibitors of cGMP-specific PDE)

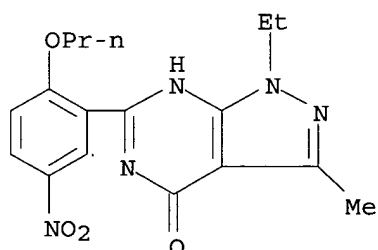
RN 168464-24-2 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-1,3-dimethyl-6-(5-nitro-2-propoxyphenyl)- (9CI) (CA INDEX NAME)



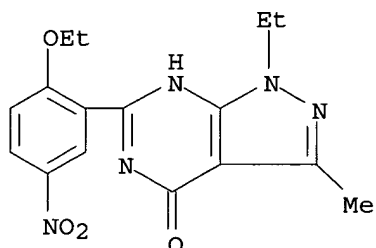
RN 168464-25-3 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1-ethyl-1,5-dihydro-3-methyl-6-(5-nitro-2-propoxyphenyl)- (9CI) (CA INDEX NAME)



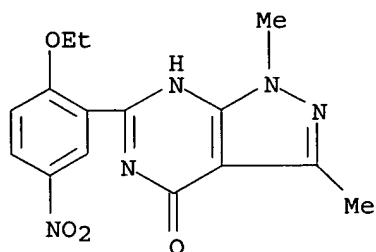
RN 168464-26-4 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 6-(2-ethoxy-5-nitrophenyl)-1-ethyl-1,5-dihydro-3-methyl- (9CI) (CA INDEX NAME)



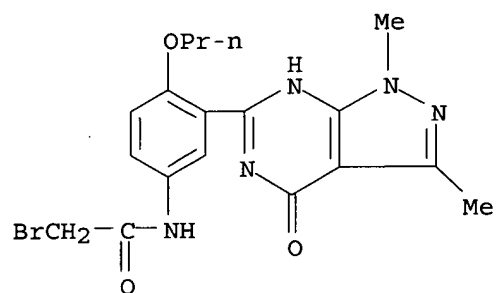
RN 168464-29-7 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 6-(2-ethoxy-5-nitrophenyl)-1,5-dihydro-1,3-dimethyl- (9CI) (CA INDEX NAME)



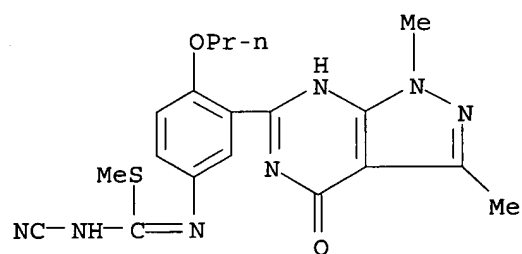
RN 168464-43-5 CAPLUS

CN Acetamide, 2-bromo-N-[3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxyphenyl]- (9CI) (CA INDEX NAME)



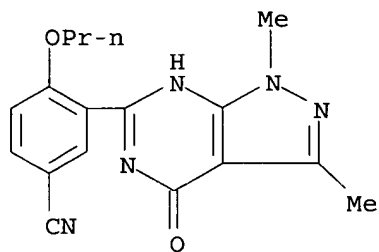
RN 168464-48-0 CAPLUS

CN Carbamimidothioic acid, N-cyano-N'-[3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxyphenyl]-, methyl ester (9CI) (CA INDEX NAME)



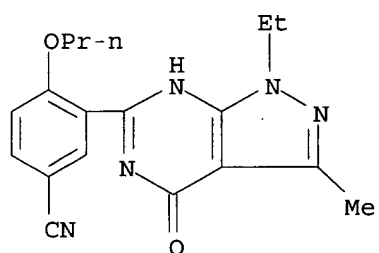
RN 168464-57-1 CAPLUS

CN Benzonitrile, 3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxy- (9CI) (CA INDEX NAME)



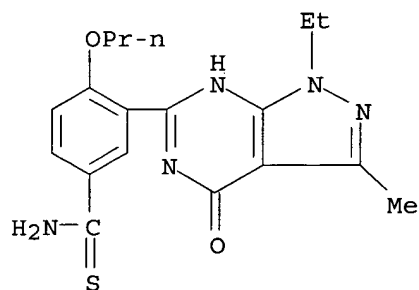
RN 168464-58-2 CAPLUS

CN Benzonitrile, 3-(1-ethyl-4,5-dihydro-3-methyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxy- (9CI) (CA INDEX NAME)



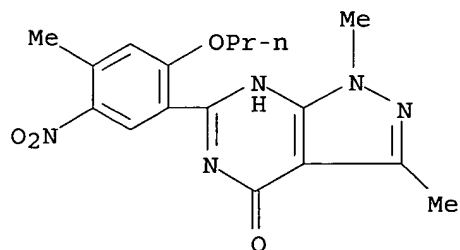
RN 168464-59-3 CAPLUS

CN Benzenecarbothioamide, 3-(1-ethyl-4,5-dihydro-3-methyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxy- (9CI) (CA INDEX NAME)



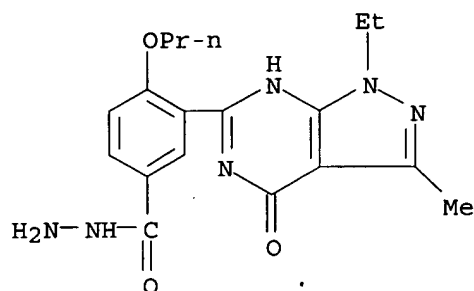
RN 168464-66-2 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-1,3-dimethyl-6-(4-methyl-5-nitro-2-propoxyphenyl)- (9CI) (CA INDEX NAME)



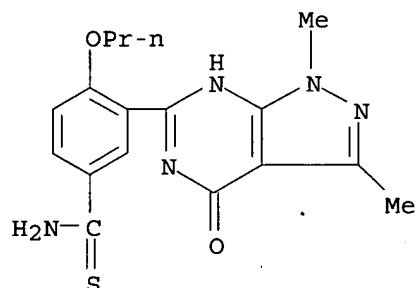
RN 168464-71-9 CAPLUS

CN Benzoic acid, 3-(1-ethyl-4,5-dihydro-3-methyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxy-, hydrazide (9CI) (CA INDEX NAME)



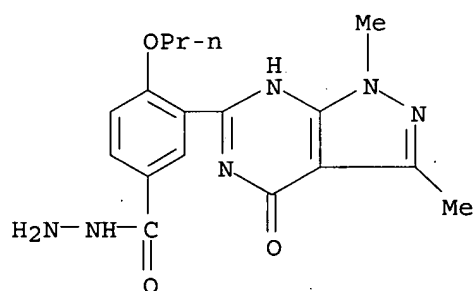
RN 168464-82-2 CAPLUS

CN Benzenecarbothioamide, 3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxy- (9CI) (CA INDEX NAME)



RN 168464-89-9 CAPLUS

CN Benzoic acid, 3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxy-, hydrazide (9CI) (CA INDEX NAME)



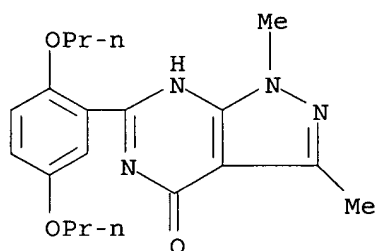
IT 168464-27-5P 168464-28-6P 168464-38-8P  
 168464-39-9P 168464-40-2P 168464-41-3P  
 168464-42-4P 168464-44-6P 168464-45-7P  
 168464-46-8P 168464-47-9P 168464-49-1P  
 168464-50-4P 168464-51-5P 168464-52-6P  
 168464-53-7P 168464-54-8P 168464-60-6P  
 168464-61-7P 168464-62-8P 168464-63-9P  
 168464-64-0P 168464-65-1P 168464-68-4P

168464-69-5P 168464-70-8P 168464-72-0P  
 168464-73-1P 168464-74-2P 168464-75-3P  
 168464-76-4P 168464-77-5P 168464-78-6P  
 168464-79-7P 168464-80-0P 168464-81-1P  
 168464-83-3P 168464-84-4P 168464-85-5P  
 168464-86-6P 168464-87-7P 168464-88-8P  
 168464-90-2P 168464-91-3P 168464-92-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of pyrazolopyrimidine derivs. as inhibitors of cGMP-specific PDE)

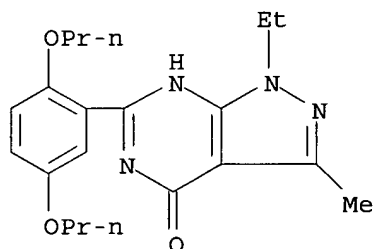
RN 168464-27-5 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 6-(2,5-dipropoxyphenyl)-1,5-dihydro-1,3-dimethyl- (9CI) (CA INDEX NAME)



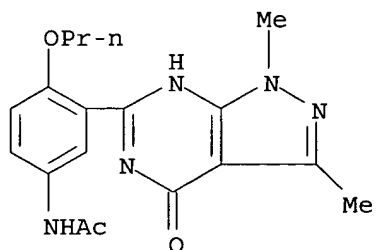
RN 168464-28-6 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 6-(2,5-dipropoxyphenyl)-1-ethyl-1,5-dihydro-3-methyl- (9CI) (CA INDEX NAME)



RN 168464-38-8 CAPLUS

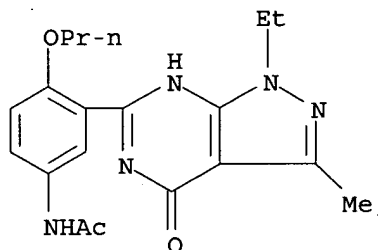
CN Acetamide, N-[3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxyphenyl]- (9CI) (CA INDEX NAME)





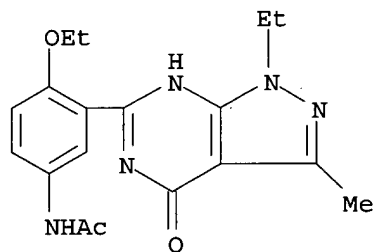
RN 168464-39-9 CAPLUS

CN Acetamide, N-[3-(1-ethyl-4,5-dihydro-3-methyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxyphenyl]- (9CI) (CA INDEX NAME)



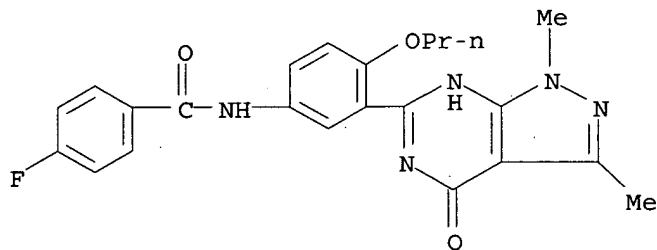
RN 168464-40-2 CAPLUS

CN Acetamide, N-[4-ethoxy-3-(1-ethyl-4,5-dihydro-3-methyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)phenyl]- (9CI) (CA INDEX NAME)



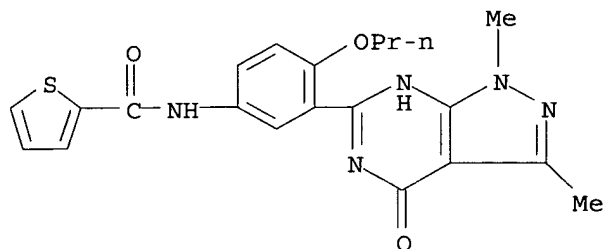
RN 168464-41-3 CAPLUS

CN Benzamide, N-[3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxyphenyl]-4-fluoro- (9CI) (CA INDEX NAME)



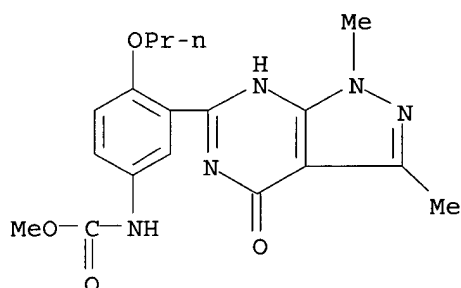
RN 168464-42-4 CAPLUS

CN 2-Thiophenecarboxamide, N-[3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxyphenyl]- (9CI) (CA INDEX NAME)



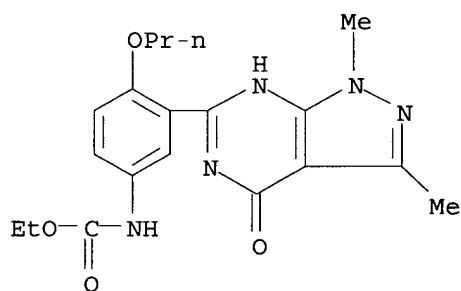
RN 168464-44-6 CAPLUS

CN Carbamic acid, [3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxyphenyl]-, methyl ester (9CI) (CA INDEX NAME)



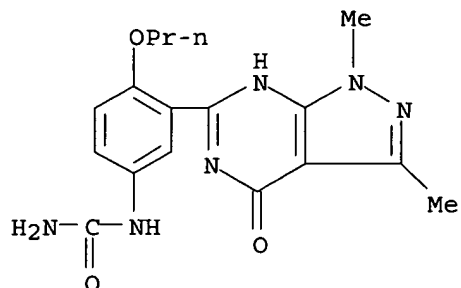
RN 168464-45-7 CAPLUS

CN Carbamic acid, [3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxyphenyl]-, ethyl ester (9CI) (CA INDEX NAME)



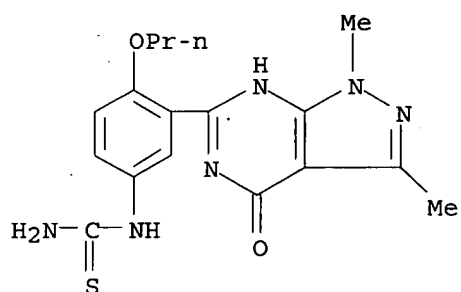
RN 168464-46-8 CAPLUS

CN Urea, [3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxyphenyl]- (9CI) (CA INDEX NAME)



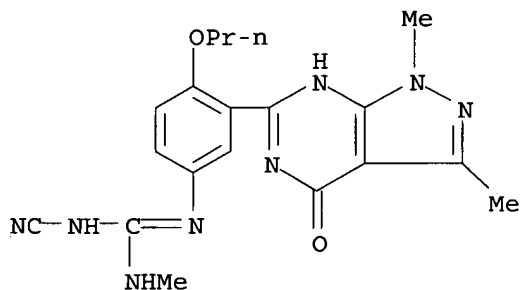
RN 168464-47-9 CAPLUS

CN Thiourea, [3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxyphenyl]- (9CI) (CA INDEX NAME)



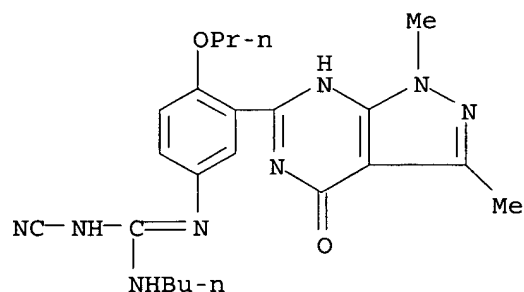
RN 168464-49-1 CAPLUS

CN Guanidine, N-cyano-N'-[3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxyphenyl]-N''-methyl- (9CI) (CA INDEX NAME)



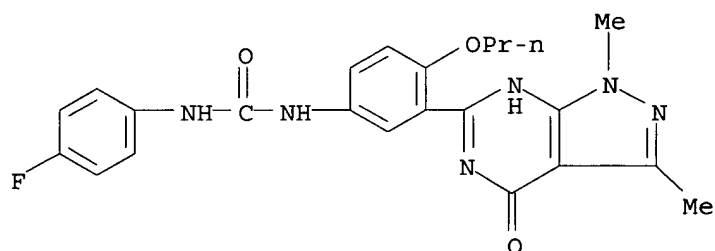
RN 168464-50-4 CAPLUS

CN Guanidine, N-butyl-N'-cyano-N''-[3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxyphenyl]- (9CI) (CA INDEX NAME)



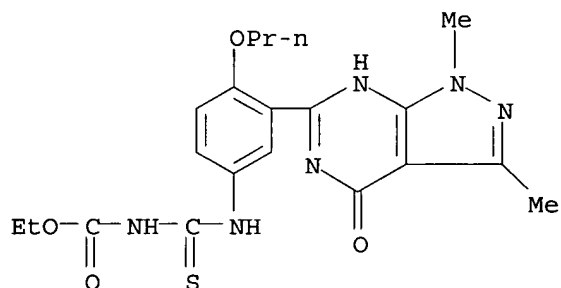
RN 168464-51-5 CAPLUS

CN Urea, N-[3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxyphenyl]-N'-(4-fluorophenyl)- (9CI) (CA INDEX NAME)



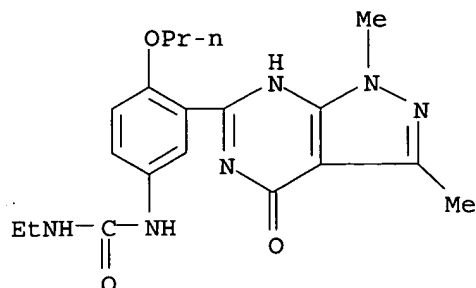
RN 168464-52-6 CAPLUS

CN Carbamic acid, [[[3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxyphenyl]amino]thioxomethyl]-, ethyl ester (9CI) (CA INDEX NAME)



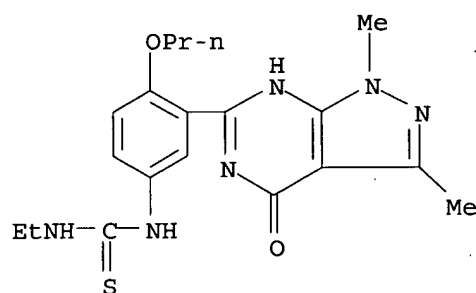
RN 168464-53-7 CAPLUS

CN Urea, N-[3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxyphenyl]-N'-ethyl- (9CI) (CA INDEX NAME)



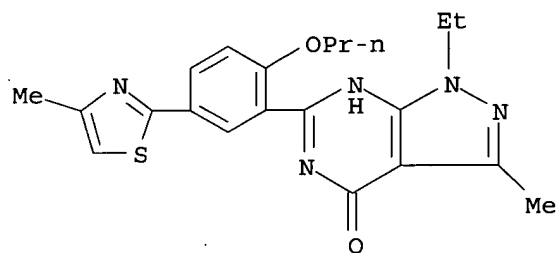
RN 168464-54-8 CAPLUS

CN Thiourea, N-[3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxyphenyl]-N'-ethyl- (9CI) (CA INDEX NAME)



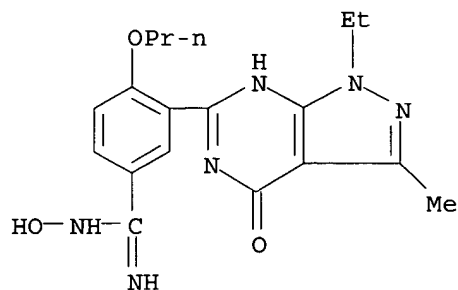
RN 168464-60-6 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1-ethyl-1,5-dihydro-3-methyl-6-[5-(4-methyl-2-thiazolyl)-2-propoxyphenyl]- (9CI) (CA INDEX NAME)



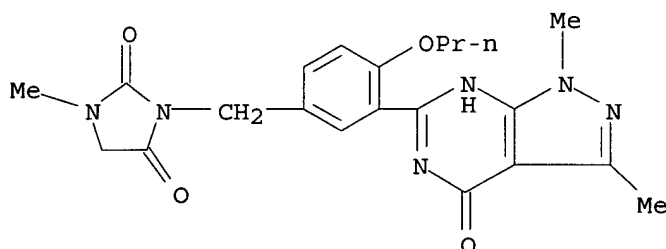
RN 168464-61-7 CAPLUS

CN Benzenecarboximidamide, 3-(1-ethyl-4,5-dihydro-3-methyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-N-hydroxy-4-propoxy- (9CI) (CA INDEX NAME)



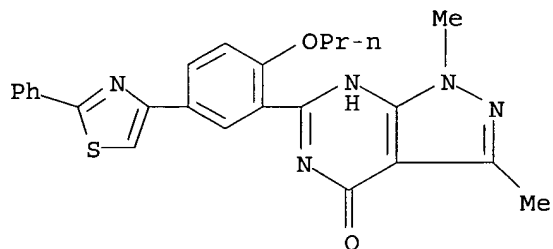
RN 168464-62-8 CAPLUS

CN 2,4-Imidazolidinedione, 3-[[3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxyphenyl]methyl]-1-methyl- (9CI)  
(CA INDEX NAME)



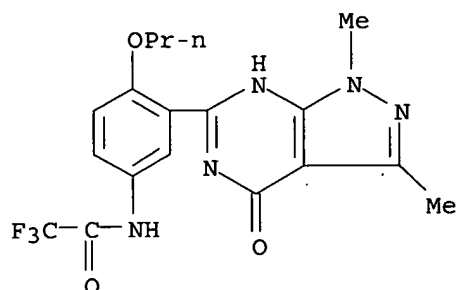
RN 168464-63-9 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-1,3-dimethyl-6-[5-(2-phenyl-4-thiazolyl)-2-propoxyphenyl]- (9CI) (CA INDEX NAME)



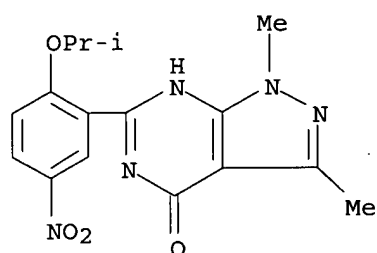
RN 168464-64-0 CAPLUS

CN Acetamide, N-[3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxyphenyl]-2,2,2-trifluoro- (9CI) (CA INDEX NAME)



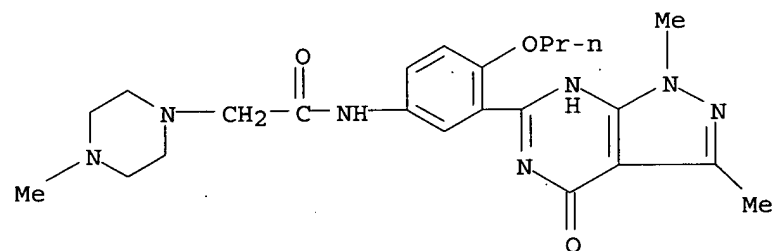
RN 168464-65-1 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-1,3-dimethyl-6-[2-(1-methylethoxy)-5-nitrophenyl]- (9CI) (CA INDEX NAME)



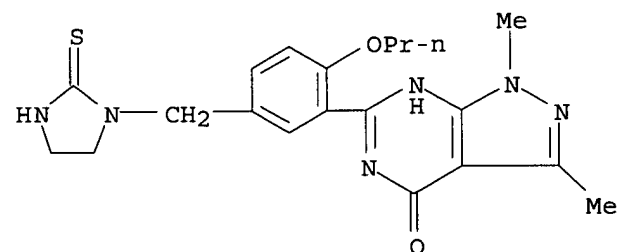
RN 168464-68-4 CAPLUS

CN 1-Piperazineacetamide, N-[3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxyphenyl]-4-methyl- (9CI) (CA INDEX NAME)



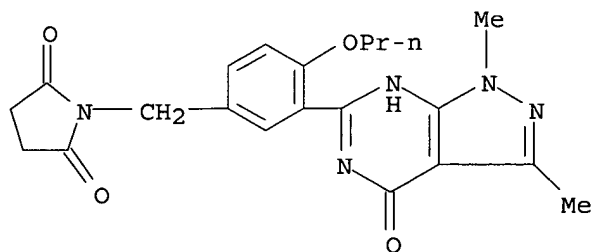
RN 168464-69-5 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-1,3-dimethyl-6-[2-propoxy-5-[(2-thioxo-1-imidazolidinyl)methyl]phenyl]- (9CI) (CA INDEX NAME)



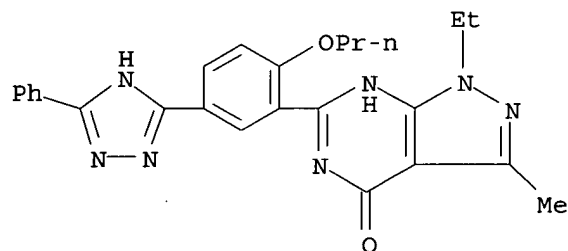
RN 168464-70-8 CAPLUS

CN 2,5-Pyrrolidinedione, 1-[[3-(4,5-dihydro-1,3-dimethyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxyphenyl]methyl] - (9CI) (CA INDEX NAME)



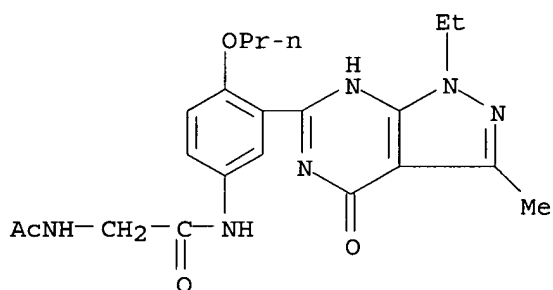
RN 168464-72-0 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1-ethyl-1,5-dihydro-3-methyl-6-[5-(5-phenyl-1H-1,2,4-triazol-3-yl)-2-propoxyphenyl] - (9CI) (CA INDEX NAME)



RN 168464-73-1 CAPLUS

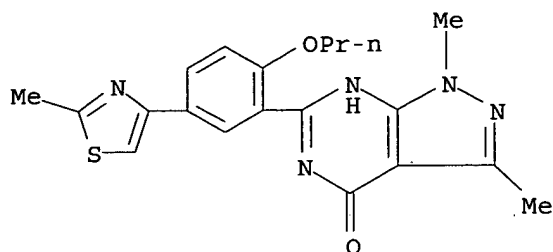
CN Acetamide, 2-(acetylamino)-N-[3-(1-ethyl-4,5-dihydro-3-methyl-4-oxo-1H-pyrazolo[3,4-d]pyrimidin-6-yl)-4-propoxyphenyl] - (9CI) (CA INDEX NAME)



RN 168464-74-2 CAPLUS

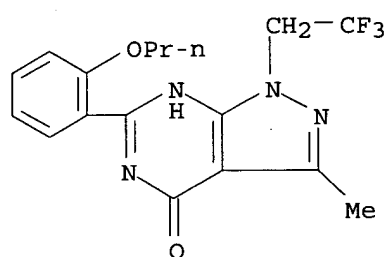
CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-1,3-dimethyl-6-[5-(2-methyl-4-thiazolyl)-2-propoxyphenyl] - (9CI) (CA INDEX NAME)





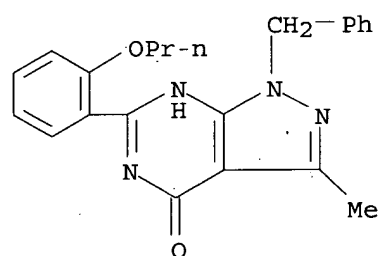
RN 168464-75-3 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-3-methyl-6-(2-propoxyphenyl)-1-(2,2,2-trifluoroethyl)- (9CI) (CA INDEX NAME)



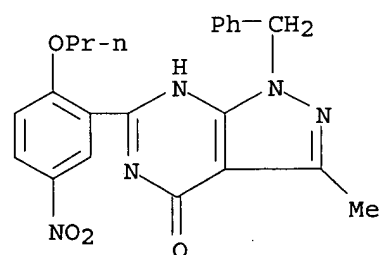
RN 168464-76-4 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-3-methyl-1-(phenylmethyl)-6-(2-propoxyphenyl)- (9CI) (CA INDEX NAME)



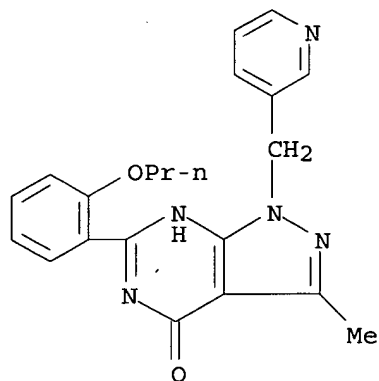
RN 168464-77-5 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-3-methyl-6-(5-nitro-2-propoxyphenyl)-1-(phenylmethyl)- (9CI) (CA INDEX NAME)



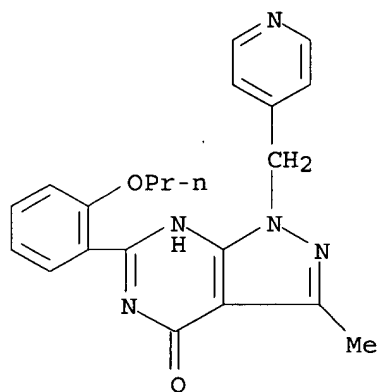
RN 168464-78-6 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-3-methyl-6-(2-propoxyphenyl)-1-(3-pyridinylmethyl)- (9CI) (CA INDEX NAME)



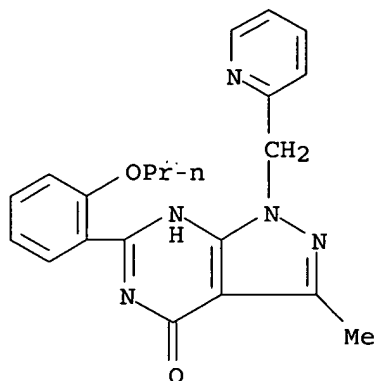
RN 168464-79-7 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-3-methyl-6-(2-propoxyphenyl)-1-(4-pyridinylmethyl)- (9CI) (CA INDEX NAME)



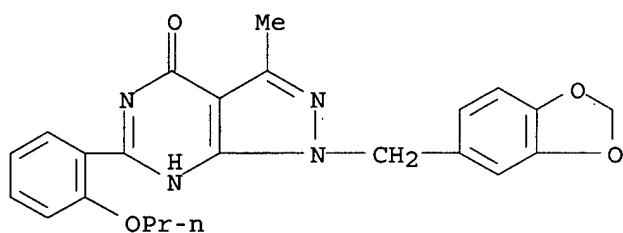
RN 168464-80-0 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-3-methyl-6-(2-propoxyphenyl)-1-(2-pyridinylmethyl)- (9CI) (CA INDEX NAME)



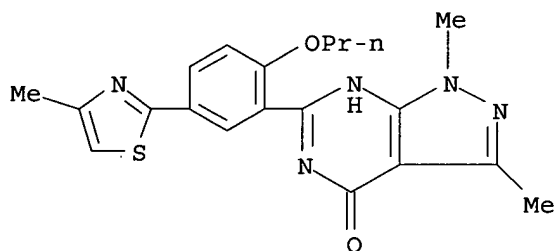
RN 168464-81-1 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1-(1,3-benzodioxol-5-ylmethyl)-1,5-dihydro-3-methyl-6-(2-propoxyphenyl)- (9CI) (CA INDEX NAME)



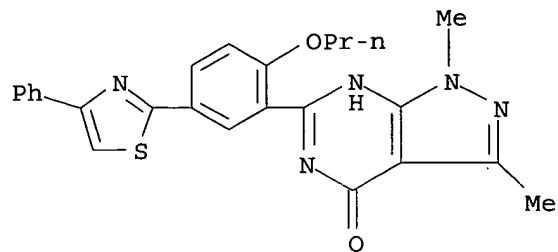
RN 168464-83-3 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-1,3-dimethyl-6-[5-(4-methyl-2-thiazolyl)-2-propoxyphenyl]- (9CI) (CA INDEX NAME)



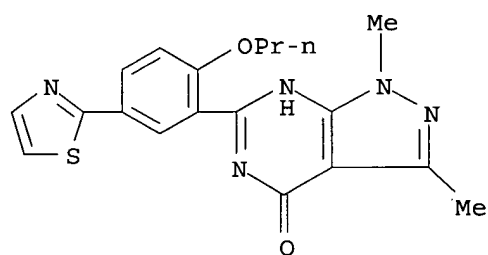
RN 168464-84-4 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-1,3-dimethyl-6-[5-(4-phenyl-2-thiazolyl)-2-propoxyphenyl]- (9CI) (CA INDEX NAME)



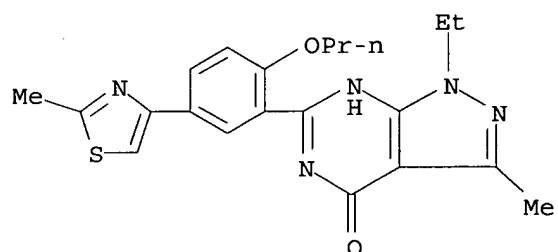
RN 168464-85-5 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-1,3-dimethyl-6-[2-propoxy-5-(2-thiazolyl)phenyl]- (9CI) (CA INDEX NAME)



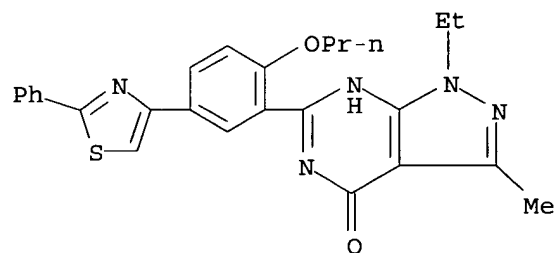
RN 168464-86-6 CAPLUS

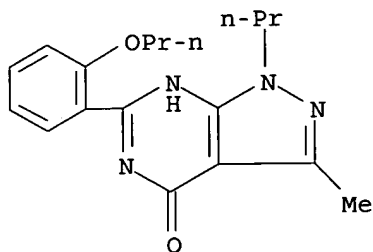
CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1-ethyl-1,5-dihydro-3-methyl-6-[5-(2-methyl-4-thiazolyl)-2-propoxyphenyl]- (9CI) (CA INDEX NAME)



RN 168464-87-7 CAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1-ethyl-1,5-dihydro-3-methyl-6-[5-(2-phenyl-4-thiazolyl)-2-propoxyphenyl]- (9CI) (CA INDEX NAME)





L11 ANSWER 12 OF 13 USPATFULL on STN

ACCESSION NUMBER: 2004:215986 USPATFULL

TITLE: Use of PDE V inhibitors for improved fecundity in mammals

INVENTOR(S): Westbrook, Simon Lempriere, County of Kent, UNITED KINGDOM  
Zanzinger, Johannes Fridrich, County of Kent, UNITED KINGDOM

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004167095	A1	20040826
APPLICATION INFO.:	US 2004-778866	A1	20040212 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2002-229534, filed on 27 Aug 2002, GRANTED, Pat. No. US 6743799 Continuation of Ser. No. US 2001-982445, filed on 18 Oct 2001, GRANTED, Pat. No. US 6548508		

	NUMBER	DATE
PRIORITY INFORMATION:	GB 2000-25782	20001020
	US 2000-25338P	20001128 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Kohn & Associates, PLLC, Suite 410, 30500 Northwestern Hwy., Farmington Hills, MI, 48334	
NUMBER OF CLAIMS:	25	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	4 Drawing Page(s)	
LINE COUNT:	1107	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to the use of a cyclic guanosine 3',5'-monophosphate phosphodiesterase type five (cGMP PDE V) inhibitor for increasing fecundity in a mammal by one or more of (a) promoting the growth of an oocyte, zygote, blastocyst, embryo and/or fetus, (b) increasing the rate or probability of survival of an embryo and/or fetus and (c) increasing the birth weight of a progeny, or for increasing milk productivity.

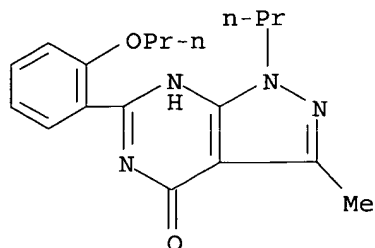
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 148872-11-1

(use of PDE V inhibitors for improved fecundity in mammals)

RN 148872-11-1 USPATFULL

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-3-methyl-6-(2-propoxyphenyl)-1-propyl- (9CI) (CA INDEX NAME)



L11 ANSWER 13 OF 13 USPATFULL on STN

ACCESSION NUMBER: 2002:144280 USPATFULL

TITLE: Pyrazolopyrimidinone CGMP PDE5 inhibitors for the treatment of sexual dysfunction

INVENTOR(S): Bunnage, Mark Edward, Sandwich, UNITED KINGDOM  
Mathias, John Paul, Sandwich, UNITED KINGDOM  
Street, Stephen Derek Albert, Sandwich, UNITED KINGDOM  
Wood, Anthony, Sandwich, UNITED KINGDOM

PATENT ASSIGNEE(S): Pfizer Inc., New York, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6407114	B1	20020618
APPLICATION INFO.:	US 1999-425095		19991022 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1998-23103	19981023
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Shah, Mukund J.	
ASSISTANT EXAMINER:	Balasubramanian, Venkataraman	
LEGAL REPRESENTATIVE:	Richardson, Peter C., Benson, Gregg C., Jones, James T.	
NUMBER OF CLAIMS:	17	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	0 Drawing Figure(s); 0 Drawing Page(s)	
LINE COUNT:	2245	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB There is provided compounds of formula IA and of formula IB, ##STR1##

wherein R.sup.1, R.sup.2, R.sup.3, R.sup.4 and A have meanings given in the description, which are useful in the curative and prophylactic treatment of a medical condition for which inhibition of a cyclic guanosine 3',5'-monophosphate phosphodiesterase (e.g. cGMP PDE5) is desired.

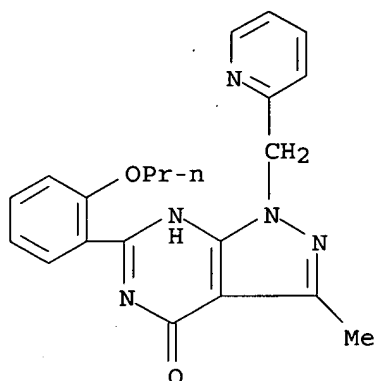
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 168464-80-0P 264920-04-9P 264920-08-3P  
264920-09-4P 264920-11-8P 264920-13-0P  
264920-15-2P 264920-17-4P 264920-18-5P  
264920-19-6P

(preparation of pyrazolopyrimidinones as cGMP PDE5 inhibitors for the treatment of sexual dysfunction)

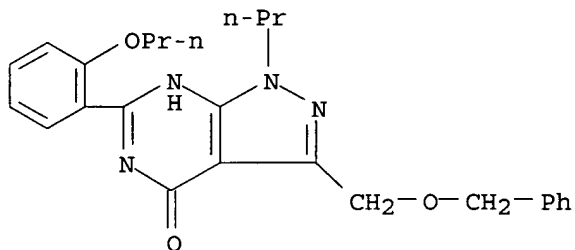
RN 168464-80-0 USPATFULL

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-3-methyl-6-(2-propoxyphenyl)-1-(2-pyridinylmethyl)- (9CI) (CA INDEX NAME)



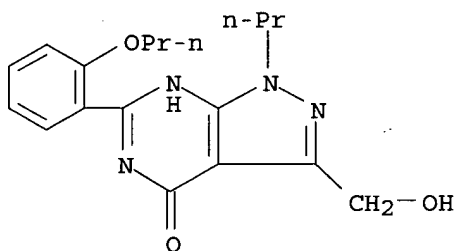
RN 264920-04-9 USPATFULL

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-3-[(phenylmethoxy)methyl]-6-(2-propoxyphenyl)-1-propyl- (9CI) (CA INDEX NAME)



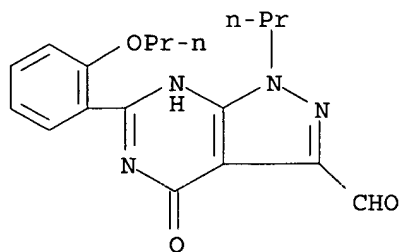
RN 264920-08-3 USPATFULL

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-3-(hydroxymethyl)-6-(2-propoxyphenyl)-1-propyl- (9CI) (CA INDEX NAME)



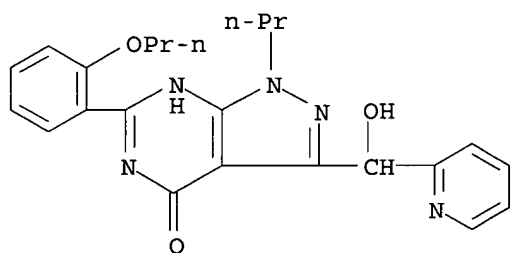
RN 264920-09-4 USPATFULL

CN 1H-Pyrazolo[3,4-d]pyrimidine-3-carboxaldehyde, 4,5-dihydro-4-oxo-6-(2-propoxyphenyl)-1-propyl- (9CI) (CA INDEX NAME)



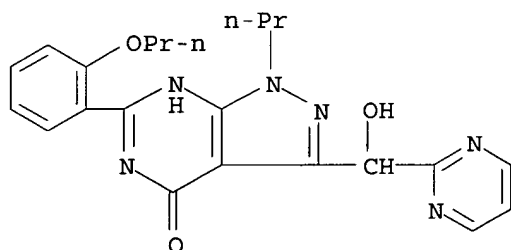
RN 264920-11-8 USPATFULL

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-3-(hydroxy-2-pyridinylmethyl)-6-(2-propoxyphenyl)-1-propyl- (9CI) (CA INDEX NAME)



RN 264920-13-0 USPATFULL

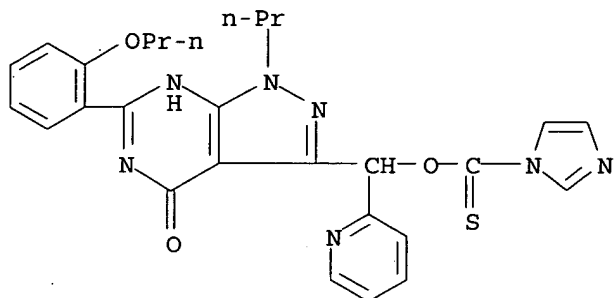
CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-3-(hydroxy-2-pyrimidinylmethyl)-6-(2-propoxyphenyl)-1-propyl- (9CI) (CA INDEX NAME)



RN 264920-15-2 USPATFULL

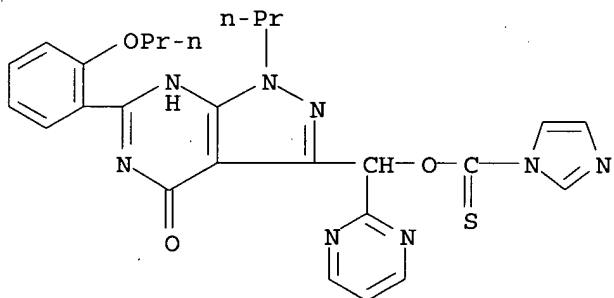
CN 1H-Imidazole-1-carbothioic acid, O-[[4,5-dihydro-4-oxo-6-(2-propoxyphenyl)-1-propyl-1H-pyrazolo[3,4-d]pyrimidin-3-yl]-2-pyridinylmethyl] ester (9CI) (CA INDEX NAME)





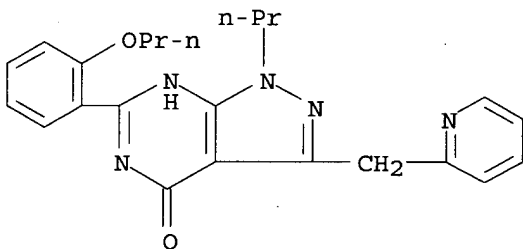
RN 264920-17-4 USPATFULL

CN 1H-Imidazole-1-carbothioic acid, O-[[4,5-dihydro-4-oxo-6-(2-propoxyphenyl)-1-propyl-1H-pyrazolo[3,4-d]pyrimidin-3-yl]-2-pyrimidinylmethyl] ester (9CI) (CA INDEX NAME)



RN 264920-18-5 USPATFULL

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-6-(2-propoxyphenyl)-1-propyl-3-(2-pyridinylmethyl)- (9CI) (CA INDEX NAME)



RN 264920-19-6 USPATFULL

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 1,5-dihydro-6-(2-propoxyphenyl)-1-propyl-3-(2-pyrimidinylmethyl)- (9CI) (CA INDEX NAME)

